



**Environmental Waste
Management Associates**

SDMS Document



128261

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April 27, 2004

Mr. Stephen Kehayes, Case Manager
NJDEP-Office of Brownfields Reuse
P. O. Box 028
401 East State Street
Trenton NJ 08625-0028

Re: **RCRA All County Area – Soil Remediation and Groundwater Monitoring
Activities Status and Results**
Former Celotex Industrial Park Property
225 River Road, Edgewater, Bergen County
EWMA Project #202352

Dear Mr. Kehayes:

Environmental Waste Management Associates, LLC (EWMA) is pleased to provide you with copies of previous reports and correspondences documenting the completion of all soil investigation and remediation activities related to the RCRA All County Area of Concern (RCRA Area) within the Building 100 to 600 portion of the referenced site.

In addition, as part of NJDEP's pending requirement for the RCRA Area, the results of the first two (2) rounds of most recent quarterly groundwater sampling/monitoring conducted by TRC Solutions from five (5) monitoring wells selected to investigate any potential groundwater impact from the RCRA Area are provided.

This letter and the attached information is being submitted in order to request a written NJDEP approval of the remedial actions performed within the RCRA area, and in support of a Deed Notice application for the Building 100 to 600 portion of the referenced site. Please note that the completion of the soil remedial activities within the RCRA Area was previously acknowledged by former NJDEP Case Manager Mr. Robert Hayton, especially in your presence during a site visit on March 18, 2003. However, a written approval of the remedial action was not issued in due time before the case was transferred to the NJDEP Office of Beneficial Reuse.

The RCRA area represents the only area of concern (AOC) within the Building 100 to 600 portion of the referenced site where active soil remediation activities were required by NJDEP. The remaining soil contamination within the RCRA Area and the Building 100 to 600 portion of the site is proposed to be addressed through engineering (site-wide capping and development) and institutional controls (Deed Notice).

RCRA Area Description

The former RCRA Area represents approximately 22,500 square feet of area loosely bounded by the existing Buildings 100, 200, and 400 at the referenced site. Attached Figure 1 shows the location of the RCRA area on the site, and details of the former RCRA facility.

The RCRA Area was an All County Environmental Services Corp. (All County) waste reclamation and disposal facility operating under the Resource Conservation and Recovery Act (RCRA) regulations. The facility structures consisted of five-foot high concrete containment structure housing two (2) 150,000-gallon ASTs and a tanker truck loading and unloading pad. Approximately 5,000 square feet of the area was used for the ASTs containment and the truck unloading pad.

A detailed history and description of this former facility is provided in the attached documents, as referenced later in this letter.

Soil Investigation/ Remedial Activities Status

All soil investigation and remediation activities related to the closure of the RCRA area were completed in accordance with the applicable RCRA regulations and to NJDEP's satisfaction during work completed by EWMA in 2000 and 2001. This was verbally acknowledged by former NJDEP Case Manager Mr. Robert Hayton in your presence during a site inspection on March 18, 2003. However, a written NJDEP approval of the soils remedial action for this area has not yet been issued.

Some of the pending groundwater monitoring requirements for the RCRA Area included the following:

- Installation of additional upgradient and downgradient monitoring wells;
- Quarterly groundwater sampling for Priority Pollutants (PP+40); and,
- The inclusion of the RCRA Area as part of the Deed Notice.

The following attached reports and correspondences previously submitted to NJDEP document that all soil investigation and remediation activities within the RCRA Area were completed to NJDEP's requirements:

- August 2000: RCRA Hazardous Waste Management Closure Plan (Appendix 1);
- October 2000: RCRA Closure Activities Progress Report #1 (Appendix 2);
- December 2000: RCRA Closure Activities Progress Report #2 (Appendix 3);
- March 14, 2001: NJDEP Comment Letter (Including comments related to RCRA Area) (Appendix 4);
- April 27, 2001: EWMA's Response Letter to NJDEP's March 14, 2001 Comment Letter (Including EWMA's response to comments related to the RCRA Area) [Appendix 5];
- March 19, 2001: EWMA's Tidal Study Report (without figures/attachments), included as Attachment A with the EWMA's response letter dated April 27, 2001 (Appendix 6);
- February 22, 2001: Groundwater Contour Map included as Attachment D with EWMA's response letter dated April 27, 2001 (Appendix 7).

Based on a review of the attached information listed above and previous conversations with the former NJDEP Case Manager Mr. Robert Hayton, EWMA deems the soil activities for the RCRA Area to be complete.

Groundwater Investigation/ Monitoring Activities Status

Attached Figure 1 shows the general location of the RCRA Area, and the monitoring wells installed and used to determine any potential groundwater impacts related to the former RCRA facility operations.

In August 2000, as part of the RCRA Hazardous Waste Management Closure Plan, EWMA proposed the installation of four (4) monitoring wells (ACMW-1 through ACMW-4) within and around the RCRA Area, in addition to the then existing monitoring well MW-10. The well locations were proposed so that the groundwater may be monitored from a point upgradient of the RCRA Area, and from four (4) downgradient points. The five (5) wells were proposed to be monitored quarterly for Priority Pollutants (PP+40) for a period of at least one-year to determine if the groundwater contamination had resulted from the former RCRA facility operations.

On August 21, 2001, EWMA installed the four proposed groundwater monitoring wells (ACMW-1 through ACMW-4) within the RCRA Area. However, quarterly groundwater monitoring was not conducted due to access issues during heavy construction activities in the well location areas. Therefore, the groundwater sampling and monitoring activities were postponed to be included as part of the groundwater investigation and monitoring strategy for the entire site.

In July 2002, TRC Solutions, inc. (TRC) [formerly Dan Raviv Associates, Inc.], on behalf of Edgewater Enterprises, Inc., included the quarterly groundwater sampling of the five (5) RCRA Area wells referenced above as part of the proposed Groundwater Investigation Workplan for the entire site. TRC proposed the groundwater samples from the RCRA Area wells to be analyzed for the PP+40 parameters as previously proposed for the groundwater monitoring in this area.

In 2003, during the implementation of the NJDEP approved Groundwater Investigation Workplan for the site, TRC determined that two (2) of the five (5) monitoring wells (i.e. MW-10 and ACMW-2) had been permanently damaged as a result of the then on-going construction activities. Therefore, TRC used the existing monitoring wells DMW-2 located east of the RCRA Area, and MW-K located northeast of the RCRA Area as the replacement wells for the MW-10 and ACMW-2 wells, respectively.

On November 5, 2003, and February 4, 2004, TRC Solutions completed two (2) rounds of quarterly groundwater sampling/ monitoring for the RCRA Area at the following five (5) monitoring wells: ACMW-1, ACMW-3, ACMW-4, DMW-2, and MW-K. The analytical results data tables titled "RCRA Area Quarterly Groundwater Sampling Results – November 2003" (Tables I through VII) and "RCRA Area Quarterly Groundwater Sampling Results – February 2004" (Tables I through VII) are attached. The monitoring well logs are included in Appendix 8.

The following presents a summary of the groundwater results:

- A number of metals including arsenic, beryllium, cadmium, lead, nickel, and thallium were detected above the NJDEP GWQS. However, the types of metals and concentrations detected

(Tables I) are consistent with the site-wide presence of metals in the soil and groundwater. The metals analytical data is generally consistent between the two (2) rounds of quarterly groundwater sampling;

- The results of volatile organics (VO+10) analysis indicate that out of the five (5) wells sampled for the RCRA area, only one (1) well (ACMW-1) indicated the presence of low levels of Trichloroethene (TCE) above the NJDEP GWQS of 1ppb at concentrations of 1.93 ppb and 1.07 ppb in November 2003 and February 2004, respectively. Two (2) monitoring wells (ACMW-3 and ACMW-4) within the RCRA area did not detect the presence of any VO compounds;
- The results of the semi-volatile organics (SVOCs) analysis did not indicate the presence of any SVOC compounds above the NJDEP GWQS in the five (5) sampled wells;
- The results of the PCBs analysis for sampling conducted in November 2003 did not detect any PCBs in the five (5) sampled wells. However, the results of the groundwater sampling conducted in February 2004 indicated the isolated presence of PCB compound Aroclor-1260 in MW-K, at a concentration of 0.691 ppb and slightly above the NJDEP GWQS of 0.5 ppb. However, MW-K is located significantly downgradient of the RCRA area, and was sampled as a replacement for the damaged well ACMW-2;
- No pesticides were detected in any of the five (5) sampled wells during both rounds of quarterly groundwater sampling.

Based on a review of the groundwater sampling results, EWMA makes the following conclusions:

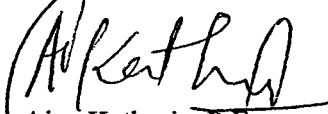
- The isolated presence of TCE slightly above NJDEP GWQS at only one (1) of the five (5) monitoring wells sampled does not indicate a continuing or significant source within the former RCRA Area. In addition, a slight decrease in the TCE and VO concentrations was observed during the second round of groundwater sampling in February 2004. Therefore, only continued groundwater monitoring for at least the two (2) remaining quarters is recommended with no further action necessary for the soils in this area;
- The isolated presence of a PCB compound above the NJDEP GWQS was detected in a monitoring well (MW-K) significantly downgradient of the RCRA area. Since no PCBs were detected in the monitoring wells within and immediately downgradient of the RCRA Area, no further action is deemed necessary for soils with regard to PCBs in this area.

**RCRA All County Area – Soil Remediation and Groundwater Monitoring
Activities Status and Results
Former Celotex Industrial Park Property
River Road, Edgewater, Bergen County
EWMA Project # 202352**

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Should you require any additional information in order to complete the review of the referenced report, please do not hesitate to contact me at (973) 560-1400, ext. 155 or Paul Schatz at ext. 151.

Sincerely,
Environmental Waste Management Associates, LLC

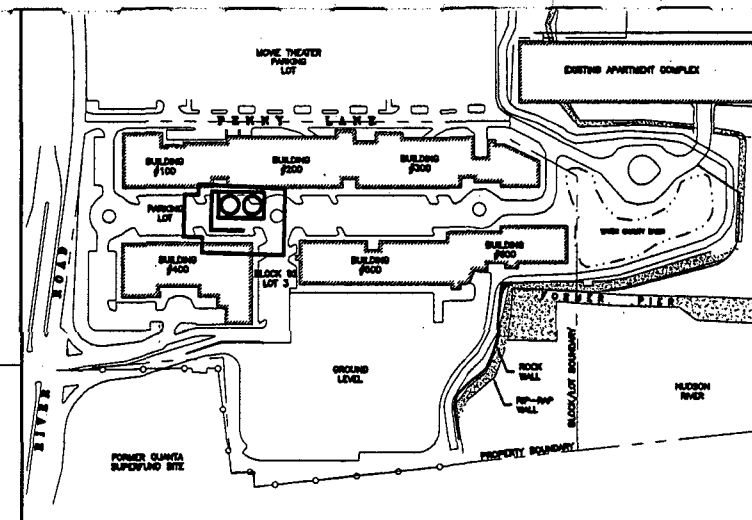
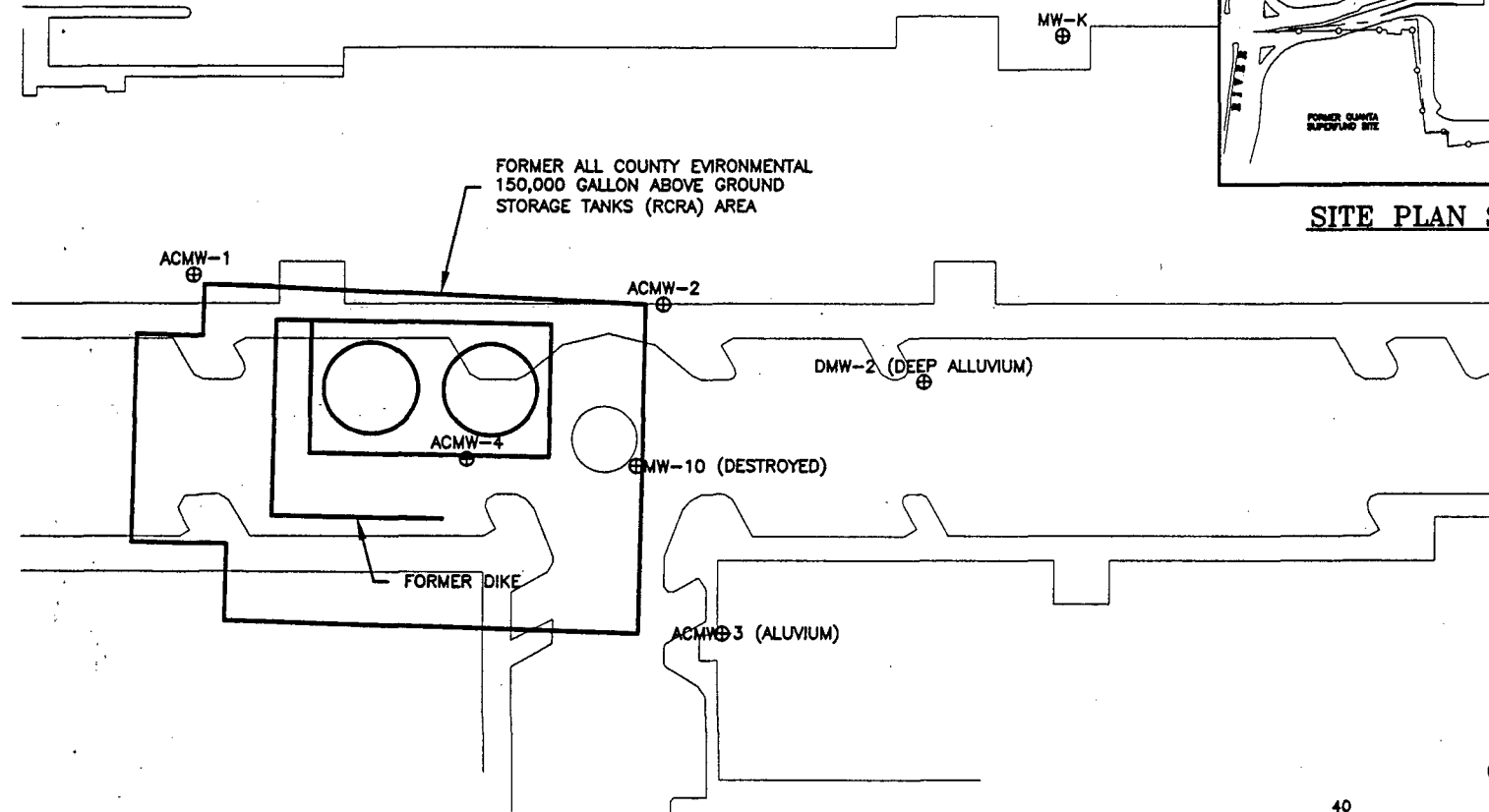

Ajay Kathuria, P.E.
Senior Project Engineer

Attachments

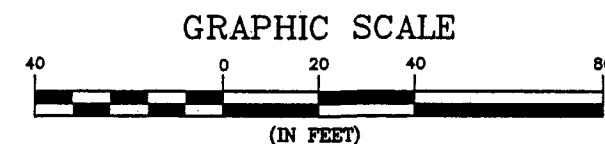
cc: Richard LaBarbiera, P.E., Edgewater Enterprises
Dennis Toft, Esq., Wolff & Samson
Rob Crespi, Esq., Wolff & Samson
Daniel A. Nachman, TRC Raviv
Pete Grogan, TRC Raviv
Paul V. Schatz, C.P.G., EWMA

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FIGURES



SITE PLAN SHOWING DETAIL AREA
N.T.S.



LEGEND

⊕ MONITORING WELL LOCATION

Environmental Waste Management Associates, LLC P.O. Box 5430 Parsippany, NJ 07054 Tel: (973) 560-1400	SCALE: AS SHOWN	PROJECT# 202352
	DATE: 3/29/04	
EWMA GROUND WATER MONITORING WELL LOCATION PLAN ALL COUNTY RCRA AREA FORMER CELOTEX INDUSTRIAL PARK 225 RIVER ROAD EDGEWATER, NEW JERSEY	DRAWN BY: RR	FIGURE# 1
	CHECKED BY: AK <small>FILE: h:\environmental\edgewater\202346\202346011.dwg</small>	

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RCRA Area Quarterly Groundwater Sampling Results - November 2003

**Table I
Metals in Ground Water
Celotex - Edgewater, NJ**

TRC Raviv Sample No.:	ACMW-1	ACMW-1 (F)	ACMW-3	ACMW-3 (F)	ACMW-4A	ACMW-4A (F)	ACMW-4B	ACMW-4B (F)
Date Sampled:	11/05/03	11/05/03	11/05/03	11/05/03	11/5/2003	11/5/2003	11/05/03	11/05/03
Lab Sample No.:	10019-007	10019-016	10019-001	10019-010	10019-005	10019-014	10019-006	10019-015
Laboratory:	IAL	IAL	IAL	IAL	IAL	IAL	IAL	IAL

Metals (ppb)	Abbrev.	GWQS								
Aluminum	Al	200	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	Sb	20	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	As	8	ND	ND	ND	ND	20.9	17.7	19.8	17.7
Beryllium	Be	20	29.7	29.1	ND	ND	ND	ND	ND	ND
Cadmium	Cd	4	18.4	18.7	ND	ND	ND	ND	ND	ND
Calcium	Ca	--	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Total	Cr	100	ND	ND	ND	ND	ND	ND	ND	ND
Copper	Cu	1,000	765	773	100	39	26.7	ND	ND	ND
Iron	Fe	300	NA	NA	NA	NA	NA	NA	NA	NA
Lead	Pb	10	30.7	29.7	51.7	20	14.7	ND	13.6	ND
Magnesium	Mg	--	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	Mn	50	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	Hg	2	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	Ni	100	126	126	4.49	ND	ND	ND	ND	ND
Selenium	Se	50	9.08	9.1	ND	ND	ND	ND	ND	ND
Silver	Ag	--	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	Na	--	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	Tl	10	10.6	10.4	0.762	0.715	ND	ND	ND	ND
Zinc	Zn	5,000	3,720	3,740	112	124	22.1	15.5	15.7	21.9

(F) = Filtered sample

A/B = Duplicate sample

ND = Not Detected.

NA = Not Analyzed

GWQS = NJDEP's Ground Water Quality Standard.

Bold indicates concentration above GWQS.

RCRA Area Quarterly Groundwater Sampling Results - November 2003

**Table I
Metals in Ground Water
Celotex - Edgewater, NJ**

TRC Raviv Sample No.:	DMW-2	DMW-2 (F)	MW-K	MW-K (F)
Date Sampled:	11/06/03	11/06/03	11/05/03	11/05/03
Lab Sample No.:	10085-002	10085-011	10019-008	10019-017
Laboratory:	IAL	IAL	IAL	IAL

Metals (ppb)	Abbrev.	GWQS				
Aluminum	Al	200	NA	NA	ND	ND
Antimony	Sb	20	ND	ND	ND	ND
Arsenic	As	8	4.01	ND	21.8	21.4
Beryllium	Be	20	ND	ND	ND	ND
Cadmium	Cd	4	ND	ND	ND	ND
Calcium	Ca	--	NA	NA	408,000	379,000
Chromium, Total	Cr	100	ND	ND	ND	ND
Copper	Cu	1,000	ND	10.7	ND	8.33
Iron	Fe	300	NA	NA	8,840	8,340
Lead	Pb	10	ND	ND	ND	ND
Magnesium	Mg	--	NA	NA	51,700	49,000
Manganese	Mn	50	NA	NA	5,150	4,830
Mercury	Hg	2	ND	ND	ND	ND
Nickel	Ni	100	ND	ND	ND	ND
Selenium	Se	50	ND	ND	ND	ND
Silver	Ag	--	ND	ND	ND	ND
Sodium	Na	--	NA	NA	139,000	129,000
Thallium	Tl	10	ND	ND	ND	ND
Zinc	Zn	5,000	35.9	32.8	18.5	14.6

(F) = Filtered sample

A/B = Duplicate sample

ND = Not Detected.

NA = Not Analyzed

GWQS = NJDEP's Ground Water Quality Standard.

Bold indicates concentration above GWQS.

RCRA Area Quarterly Groundwater Sampling Results - November 2003

Table II
Volatile Organic Compounds in Ground Water
Celotex - Edgewater, NJ

TRC Raviv Sample No.: ACMW-1		ACMW-3	ACMW-4A	ACMW-4B	DMW-2	MW-K
Date Sampled:		11/05/03	11/05/03	11/05/03	11/06/03	11/05/03
Lab Sample No.:		10019-007	10019-001	10019-005	10019-006	10085-002
Laboratory:		IAL	IAL	IAL	IAL	IAL
Volatiles (ppb)	GWQS					
Chloromethane	30	ND	ND	ND	ND	ND
Vinyl Chloride	5	ND	ND	ND	ND	ND
Bromomethane	10	ND	ND	ND	ND	ND
Chloroethane	—	ND	ND	ND	ND	ND
Trichlorofluoromethane	—	ND	ND	ND	ND	11.1
Acrolein	—	ND	ND	ND	ND	ND
1,1-Dichloroethene	2	ND	ND	ND	ND	ND
Methylene Chloride	3	ND	ND	ND	ND	ND
Acrylonitrile	50	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	ND	ND	ND	ND	ND
1,1-Dichloroethane	50	ND	ND	ND	ND	ND
Chloroform	6	0.763	ND	ND	ND	ND
1,1,1-Trichloroethane	30	ND	ND	ND	ND	ND
Carbon Tetrachloride	2	ND	ND	ND	ND	ND
1,2-Dichloroethane	2	ND	ND	ND	1.47	ND
Benzene	1	0.954	ND	ND	ND	ND
Trichloroethene	1	1.93	ND	ND	ND	ND
1,2-Dichloropropane	1	ND	ND	ND	ND	ND
Bromodichloromethane	1	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	—	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	—	ND	ND	ND	ND	ND
Toluene	1000	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	—	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	3	ND	ND	ND	ND	ND
Tetrachloroethene	1	ND	ND	ND	ND	ND
Dibromochloromethane	10	ND	ND	ND	ND	ND
Chlorobenzene	50	ND	ND	ND	ND	ND
Ethylbenzene	700	ND	ND	ND	ND	ND
Total Xylenes	1000	ND	ND	ND	ND	ND
Bromoform	4	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	600	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	ND	ND	ND	ND	ND
Targeted VOCs		3.65	ND	ND	1.47	11.1
Total TICs		ND	ND	ND	ND	34.1
Total VOCs		3.65	ND	ND	1.47	45.2

ND = Not Detected.

A/B = Duplicate sample.

GWQS = NJDEP's Ground Water Quality Standard.

Bold indicates concentration above GWQS.

RCRA Area Quarterly Groundwater Sampling Results - November 2003

Table III

Semi-Volatile Organic Compounds In Ground Water
Celotex - Edgewater, NJ

TRC Raw Sample No.:		ACMW-1	ACMW-3	ACMW-4A	ACMW-4B	DMW-2	MMW-K
Date Sampled:		11/05/2003	11/05/2003	11/05/2003	11/05/2003	11/06/2003	11/05/2003
Lab Sample No.:		10019-007	10019-001	10019-005	10019-006	10085-002	10019-008
Laboratory:		GWQS	IAL	IAL	IAL	IAL	IAL
BNs and AEs (ppb)							
N-Nitrosodimethylamine	20	ND	ND	ND	ND	ND	ND
Phenol	4000	ND	ND	ND	ND	ND	ND
Aniline	-	ND	ND	ND	ND	ND	ND
Bis(2-Chloroethyl)ether	10	ND	ND	ND	ND	ND	ND
2-Chlorophenol	-	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	600	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	ND	ND	ND	ND	ND	ND
Benzyl alcohol	300	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	ND	ND	ND	ND	ND	ND
2-Methylphenol	-	ND	ND	ND	ND	ND	ND
Bis(2-chloroisopropyl)ether	300	ND	ND	ND	ND	ND	ND
4-Methylphenol	-	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	20	ND	ND	ND	ND	ND	ND
Hexachloroethane	10	ND	ND	ND	ND	ND	ND
Nitrobenzene	100	ND	ND	ND	ND	ND	ND
Isophorone	-	ND	ND	ND	ND	ND	ND
2-Nitrophenol	-	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	100	ND	ND	ND	ND	ND	ND
Bis(2-Chloroethoxy)methane	-	ND	ND	ND	ND	ND	ND
Benzoic acid	-	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	20	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	9	ND	ND	ND	ND	ND	ND
Naphthalene	300	ND	ND	ND	ND	ND	ND
4-Chloroaniline	-	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	1	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	-	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	-	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	50	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	20	ND	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	700	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	-	ND	ND	ND	ND	ND	ND
2-Nitroaniline	-	ND	ND	ND	ND	ND	ND
Dimethylphthalate	-	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	10	ND	ND	ND	ND	ND	ND
Acenaphthylene	-	0.188	ND	ND	ND	ND	ND
3-Nitroaniline	-	ND	ND	ND	ND	ND	ND
Acenaphthene	400	1.29	ND	0.532	ND	ND	2.69
2,4-Dinitrophenol	40	ND	ND	ND	ND	ND	ND
4-Nitrophenol	-	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	10	ND	ND	ND	ND	ND	ND
Dibenzofuran	-	1.32	ND	ND	ND	ND	ND
Diethylphthalate	5000	ND	ND	0.516	0.49	ND	ND
Fluorene	300	1.12	ND	ND	ND	ND	ND
4-Chlorophenyl-phenylether	-	ND	ND	ND	ND	ND	ND
4-Nitroaniline	-	ND	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	-	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	20	ND	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine/Azobenzene	-	ND	ND	ND	ND	ND	ND
4-Bromophenyl-phenylether	-	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	10	ND	ND	ND	ND	ND	ND
Phenachlorophenol	1	ND	ND	ND	ND	ND	ND
Phenanthrene	-	0.687	ND	ND	ND	ND	ND
Anthracene	2000	ND	ND	ND	ND	ND	ND
Carbazole	-	1.5	ND	ND	ND	ND	ND
D-n-butylphthalate	900	ND	ND	ND	ND	ND	ND
Fluoranthene	300	ND	ND	ND	ND	ND	ND
Benzokhine	50	ND	ND	0.278	0.348	ND	ND
Pyrene	200	ND	ND	ND	ND	ND	ND
3,3-Dimethylbenzidine	-	ND	ND	ND	ND	ND	ND
Butylbenzylphthalate	100	ND	ND	ND	ND	ND	ND
3,3-Dichlorobenzidine	60	ND	ND	ND	ND	ND	ND
Benzolanthracene	-	ND	ND	ND	ND	ND	ND
Chrysene	-	ND	ND	ND	ND	ND	ND
Bis(2-Ethylhexyl)phthalate	30	ND	ND	ND	ND	ND	ND
D-n-octylphthalate	100	ND	ND	ND	ND	ND	ND
Benzobifluoranthene	-	ND	ND	ND	ND	ND	ND
Benzokifluoranthene	-	ND	ND	ND	ND	ND	ND
Benzolalpyrene	-	ND	ND	ND	ND	ND	ND
Indenol(1,2,3-cd)pyrene	-	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	-	ND	ND	ND	ND	ND	ND
Benzof(a,h)pyrene	-	ND	ND	ND	ND	ND	ND
Total Targeted BNs and AEs	-	6.11	ND	1.33	0.838	ND	2.69
Total TICs	-	6.11	ND	46.7	19.4	ND	ND
Total BNs and AEs	-	6.11	ND	48	20.2	ND	2.69

ND = Not Detected

A/B = Duplicate sample.

GWQS = NJDEP's Ground Water Quality Standard.

Bold indicates concentration above GWQS.

RCRA Area Quarterly Groundwater Sampling Results - November 2003

**Table IV
Polychlorinated Biphenyls in Ground Water
Celotex - Edgewater, NJ**

TRC Raviv Sample No.:	ACMW-1	ACMW-3	ACMW-4A	ACMW-4B	DMW-2	MW-K
Date Sampled:	11/05/2003	11/05/2003	11/05/2003	11/05/2003	11/06/2003	11/05/2003
Lab Sample No.:	10019-007	10019-001	10019-005	10019-006	10085-002	10019-008
Laboratory:	IAL	IAL	IAL	IAL	IAL	IAL

PCBs (ppb)	GWQS						
Aroclor-1016	--	ND	ND	ND	ND	ND	ND
Aroclor-1221	--	ND	ND	ND	ND	ND	ND
Aroclor-1232	--	ND	ND	ND	ND	ND	ND
Aroclor-1242	--	ND	ND	ND	ND	ND	ND
Aroclor-1248	--	ND	ND	ND	ND	ND	ND
Aroclor-1254	--	ND	ND	ND	ND	ND	ND
Aroclor-1260	--	ND	ND	ND	ND	ND	ND
Total PCBs	0.5	ND	ND	ND	ND	ND	ND

ND = Not Detected.

A/B = Duplicate sample.

GWQS = NJDEP's Ground Water Quality Standard.

Bold indicates concentration above GWQS.

RCRA Area Quarterly Groundwater Sampling Results - November 2003

**Table V
Pesticides in Ground Water
Celotex - Edgewater, NJ**

TRC Raviv Sample No.:	ACMW-1	ACMW-3	ACMW-4A	ACMW-4B	DMW-2	MW-K
Date Sampled:	11/05/2003	11/05/2003	11/05/2003	11/05/2003	11/06/2003	11/05/2003
Lab Sample No.:	10019-007	10019-001	10019-005	10019-006	10085-002	10019-008
Laboratory:	IAL	IAL	IAL	IAL	IAL	IAL

Pesticides (ppb)	GWQS						
alpha-BHC	0.02	ND	ND	ND	ND	ND	ND
beta-BHC	0.2	ND	ND	ND	ND	ND	ND
gamma-BHC	0.2	ND	ND	ND	ND	ND	ND
delta-BHC	—	ND	ND	ND	ND	ND	ND
Heptachlor	0.4	ND	ND	ND	ND	ND	ND
Aldrin	0.04	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	0.2	ND	ND	ND	ND	ND	ND
Endosulfan I	0.4	ND	ND	ND	ND	ND	ND
4,4'-DDE	0.1	ND	ND	ND	ND	ND	ND
Dieldrin	0.03	ND	ND	ND	ND	ND	ND
Endrin	2	ND	ND	ND	ND	ND	ND
Endosulfan II	0.4	ND	ND	ND	ND	ND	ND
4,4'-DDD	0.1	ND	ND	ND	ND	ND	ND
Endrin aldehyde	—	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	0.4	ND	ND	ND	ND	ND	ND
4,4'-DDT	0.1	ND	ND	ND	ND	ND	ND
Chlordane	0.5	ND	ND	ND	ND	ND	ND
Toxaphene	3	ND	ND	ND	ND	ND	ND

ND = Not Detected.

A/B = Duplicate sample.

GWQS = NJDEP's Ground Water Quality Standard.

Bold indicates concentration above GWQS.

RCRA Area Quarterly Groundwater Sampling Results - November 2003

**Table VI
General Chemistry in Ground Water
Celotex - Edgewater, NJ**

TRC Raviv Sample No.:	ACMW-1	ACMW-3	ACMW-4A	ACMW-4B	DMW-2	MW-K
Date Sampled:	11/05/03	11/05/03	11/05/03	11/05/03	11/06/03	11/05/03
Lab Sample No.:	10019-007	10019-001	10019-005	10019-006	10085-002	10019-008
Laboratory:	IAL	IAL	IAL	IAL	IAL	IAL

General Chemistry (ppb)	GWQS						
Bicarbonate Alkalinity	--	NA	NA	NA	NA	NA	298,000
Chloride	250,000	NA	NA	NA	NA	NA	152,000
Sulfate	250,000	NA	NA	NA	NA	NA	1,170,000
Total Dissolved Solids	500,000	NA	NA	NA	NA	NA	2,030,000
Total Cyanide	200	ND	ND	ND	ND	ND	ND
Total Recoverable Phenols	--	ND	ND	ND	ND	ND	ND

ND = Not Detected.

NA = Not Analyzed.

A/B = Duplicate sample.

GWQS = NJDEP's Ground Water Quality Standard.

Bold indicates concentration above GWQS.

RCRA Area Quarterly Groundwater Sampling Results - February 2004

**Table I
Metals in Ground Water
Celotex - Edgewater, NJ**

TRC Raviv Sample No.:	ACMW-1	ACMW-1 (F)	ACMW-3	ACMW-3 (F)	ACMW-4A	ACMW-4A (F)	ACMW-4B	ACMW-4B (F)
Date Sampled:	02/04/04	02/04/04	02/04/04	02/04/04	02/03/04	02/03/04	02/03/04	02/03/04
Lab Sample No.:	01009-001	01009-007	01009-005	01009-011	00979-005	00979-015	00979-006	00979-016
Laboratory:	IAL	IAL	IAL	IAL	IAL	IAL	IAL	IAL

Metals (ppb)	Abbrev.	GWQS								
Aluminum	Al	200	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	Sb	20	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	As	8	ND	ND	ND	ND	6.91	7.12	7.27	6.55
Beryllium	Be	20	32.0	30.3	ND	ND	ND	ND	ND	ND
Cadmium	Cd	4	18.0	18.9	1.41	2.93	ND	ND	ND	ND
Calcium	Ca	--	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Total	Cr	100	ND	ND	ND	ND	ND	ND	ND	ND
Copper	Cu	1,000	805	805	38.9	31.1	12.7	ND	9.55	ND
Iron	Fe	300	NA	NA	NA	NA	NA	NA	NA	NA
Lead	Pb	10	31.0	29.7	103	42.8	ND	ND	ND	ND
Magnesium	Mg	--	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	Mn	50	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	Hg	2	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	Ni	100	136	133	4.82	5.01	ND	ND	ND	ND
Selenium	Se	50	ND	ND	ND	ND	ND	ND	ND	ND
Silver	Ag	--	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	Na	--	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	Tl	10	11.0	10.5	0.819	0.889	ND	ND	ND	ND
Zinc	Zn	5,000	3,990	4000	91.3	90.6	17.3	22.5	20.5	19.7

(F) = Filtered sample

ND = Not Detected.

NA = Not Analyzed

A/B = Duplicate sample

GWQS = NJDEP's Ground Water Quality Standard.

Bold indicates concentration above GWQS.

RCRA Area Quarterly Groundwater Sampling Results - February 2004

**Table I
Metals in Ground Water
Celotex - Edgewater, NJ**

TRC Raviv Sample No.:	DMW-2	DMW-2 (F)	MW-K	MW-K (F)
Date Sampled:	02/03/04	02/03/04	02/04/04	02/04/04
Lab Sample No.:	00979-009	00979-019	01009-003	01009-009
Laboratory:	IAL	IAL	IAL	IAL

Metals (ppb)	Abbrev.	GWQS				
Aluminum	Al	200	NA	NA	110	ND
Antimony	Sb	20	ND	ND	ND	ND
Arsenic	As	8	ND	ND	21.3	22.7
Beryllium	Be	20	ND	ND	ND	ND
Cadmium	Cd	4	ND	ND	1.90	2.00
Calcium	Ca	--	NA	NA	418,000	447,000
Chromium, Total	Cr	100	ND	ND	ND	ND
Copper	Cu	1,000	17.4	ND	ND	ND
Iron	Fe	300	NA	NA	12,400	12,200
Lead	Pb	10	ND	ND	ND	ND
Magnesium	Mg	--	NA	NA	56,700	58,600
Manganese	Mn	50	NA	NA	ND	5,310
Mercury	Hg	2	ND	ND	ND	ND
Nickel	Ni	100	ND	ND	ND	ND
Selenium	Se	50	ND	ND	ND	ND
Silver	Ag	--	ND	ND	ND	ND
Sodium	Na	--	NA	NA	150,000	134,000
Thallium	Tl	10	ND	ND	ND	ND
Zinc	Zn	5,000	38.6	33.7	20.8	27.3

(F) = Filtered sample

ND = Not Detected.

NA = Not Analyzed

A/B = Duplicate sample

GWQS = NJDEP's Ground Water Quality Standard.

Bold indicates concentration above GWQS.

RCRA Area Quarterly Groundwater Sampling Results - February 2004

Table II
Volatile Organic Compounds in Ground Water
Celotex - Edgewater, NJ

TRC Raviv Sample No.:	ACMW-1	ACMW-3	ACMW-4A	ACMW-4B	DMW-2	MW-K
Date Sampled:	02/04/04	02/04/04	02/03/04	02/03/04	02/03/04	02/04/04
Lab Sample No.:	01009-001	01009-005	00979-005	00979-006	00979-009	01009-003
Laboratory:	IAL	IAL	IAL	IAL	IAL	IAL

Volatiles (ppb)	GWQS						
Chloromethane	30	ND	ND	ND	ND	ND	ND
Vinyl Chloride	5	ND	ND	ND	ND	ND	ND
Bromomethane	10	ND	ND	ND	ND	ND	ND
Chloroethane	--	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	--	ND	ND	ND	ND	ND	18.6
Acrolein	--	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	2	ND	ND	ND	ND	ND	ND
Methylene Chloride	3	ND	ND	ND	ND	ND	ND
Acrylonitrile	50	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	50	ND	ND	ND	ND	ND	ND
Chloroform	6	0.586	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	30	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	2	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	2	ND	ND	ND	ND	1.83	ND
Benzene	1	0.670	ND	ND	ND	ND	ND
Trichloroethene	1	1.07	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	--	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	--	ND	ND	ND	ND	ND	ND
Toluene	1000	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	--	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	3	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1	ND	ND	ND	ND	ND	ND
Dibromochloromethane	10	ND	ND	ND	ND	ND	ND
Chlorobenzene	50	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	ND	ND	ND	ND	ND	ND
Total Xylenes	1000	ND	ND	ND	ND	ND	ND
Bromoform	4	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	600	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	ND	ND	ND	ND	ND	ND
Targeted VOCs		2.33	ND	ND	ND	1.83	18.6
Total TICs		ND	ND	ND	ND	ND	19.8
Total VOCs		2.33	ND	ND	ND	1.83	38.4

ND = Not Detected.

A/B = Duplicate sample

GWQS = NJDEP's Ground Water Quality Standard.

Bold indicates concentration above GWQS.

RCRA Area Quarterly Groundwater Sampling Results - February 2004

Table III

Semi-Volatile Organic Compounds in Ground Water

Celotex - Edgewater, NJ

TRC Raviv Sample No.: ACMW-1 ACMW-3 ACMW-4A ACMW-4B DMW-2 MW-K
 Date Sampled: 02/04/04 02/04/04 02/03/04 02/03/04 02/03/04 02/04/04
 Lab Sample No.: 01009-001 01009-005 00979-005 00979-006 00979-009 01009-003
 Laboratory: IAL IAL IAL IAL IAL IAL

BNS and AES (ppb)	GWQS	ACMW-1	ACMW-3	ACMW-4A	ACMW-4B	DMW-2	MW-K
N-Nitrosodimethylaniline	20	ND	ND	ND	ND	ND	ND
Phenol	4000	ND	ND	ND	ND	ND	ND
Aniline	-	ND	ND	ND	ND	ND	ND
bis(2-Chloroethyl)ether	10	ND	ND	ND	ND	ND	ND
2-Chlorophenol	-	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	600	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	ND	ND	ND	ND	ND	ND
Benzyl alcohol	300	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	ND	ND	ND	ND	ND	ND
2-Methylphenol	-	ND	ND	ND	ND	ND	ND
bis(2-chloroisopropyl)ether	300	ND	ND	ND	ND	ND	ND
4-Methylphenol	-	ND	ND	ND	ND	ND	ND
N-Nitroso-d-n-propylaniline	20	ND	ND	ND	ND	ND	ND
Hexachloroethane	10	ND	ND	ND	ND	ND	ND
Nitrobenzene	100	ND	ND	ND	ND	ND	ND
Isophorone	-	ND	ND	ND	ND	ND	ND
2-Nitrophenol	-	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	100	ND	ND	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	-	ND	ND	ND	ND	ND	ND
Benzoic acid	-	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	20	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	9	ND	ND	ND	ND	ND	ND
Naphthalene	300	1.28	ND	ND	ND	ND	ND
4-Chloroaniline	-	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	1	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	-	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	-	0.108 J	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	50	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	20	ND	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	700	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	-	ND	ND	ND	ND	ND	ND
2-Nitroaniline	-	ND	ND	ND	ND	ND	ND
Dimethylphthalate	-	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	10	ND	ND	ND	ND	ND	ND
Acenaphthylene	-	0.180	ND	ND	ND	ND	ND
3-Nitroaniline	-	ND	ND	ND	ND	ND	ND
Acenaphthene	400	1.52	ND	0.811	0.774	ND	2.26
2,4-Dinitrophenol	40	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	-	ND	ND	ND	ND	ND	ND
Dibenzofuran	10	ND	ND	ND	ND	ND	ND
Diethylphthalate	5000	ND	ND	ND	ND	ND	ND
Fluorene	300	1.22	ND	1.29	1.30	ND	ND
4-Chlorophenyl-phenylether	-	ND	ND	ND	ND	ND	ND
4-Nitroaniline	-	ND	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	-	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	20	ND	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine/Azobenzene	-	ND	ND	ND	ND	ND	ND
4-Bromophenyl-phenylether	-	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	10	ND	ND	ND	ND	ND	ND
Pentachlorophenol	1	ND	ND	ND	ND	ND	ND
Phenanthrene	-	0.705	ND	ND	ND	ND	ND
Anthracene	2000	1.78	ND	ND	ND	ND	ND
Carbazole	-	ND	ND	ND	ND	ND	ND
D-n-butylphthalate	900	ND	ND	ND	ND	ND	ND
Fluoranthene	300	ND	ND	ND	ND	ND	ND
Benztidine	50	ND	ND	ND	ND	ND	ND
Pyrene	200	ND	ND	0.244	0.289	ND	0.090 J
3,3'-Dimethylbenzidine	-	ND	ND	ND	ND	ND	ND
Butylbenzylphthalate	100	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	60	ND	ND	ND	ND	ND	ND
Benzolalanthracene	-	ND	ND	ND	ND	ND	ND
Chrysene	-	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	30	ND	0.484	0.437	ND	0.624	ND
D-n-octylphthalate	100	ND	ND	ND	ND	ND	ND
Benzofluoranthene	-	ND	ND	ND	ND	ND	ND
Benzokifluoranthene	-	ND	ND	ND	ND	ND	ND
Benzolalpyrene	-	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	-	ND	ND	ND	ND	ND	ND
Dibenz[a,h]anthracene	-	ND	ND	ND	ND	ND	ND
Benzofluoranthene	-	ND	ND	ND	ND	ND	ND
Total Targeted BNS and AES	-	6.79 J	0.484	2.78	2.36	0.624	2.35 J
Total TICs	-	ND	ND	8.30	15.5	9.30	5.80
Total BNS and AES	-	6.79 J	0.484	11.1	17.9	9.92	8.15 J

ND = Not Detected

A/B = Duplicate sample

GWQS = NJDEP's Ground Water Quality Standard

Bold indicates concentration above GWQS.

RCRA Area Quarterly Groundwater Sampling Results - February 2004

**Table IV
Polychlorinated Biphenyls in Ground Water
Celotex - Edgewater, NJ**

TRC Raviv Sample No.:	ACMW-1	ACMW-3	ACMW-4A	ACMW-4B	DMW-2	MW-K
Date Sampled:	02/04/04	02/04/04	02/03/04	02/03/04	02/03/04	02/04/04
Lab Sample No.:	01009-001	01009-005	00979-005	00979-006	00979-009	01009-003
Laboratory:	IAL	IAL	IAL	IAL	IAL	IAL
PCBs (ppb)	GWQS					
Aroclor-1016	--	ND	ND	ND	ND	ND
Aroclor-1221	--	ND	ND	ND	ND	ND
Aroclor-1232	--	ND	ND	ND	ND	ND
Aroclor-1242	--	ND	ND	ND	ND	ND
Aroclor-1248	--	ND	ND	ND	ND	ND
Aroclor-1254	--	ND	ND	ND	ND	ND
Aroclor-1260	--	ND	ND	ND	ND	0.691
Total PCBs	0.5	ND	ND	ND	ND	0.691

ND = Not Detected.

A/B = Duplicate sample

GWQS = NJDEP's Ground Water Quality Standard.

Bold indicates concentration above GWQS.

RCRA Area Quarterly Groundwater Sampling Results - February 2004

**Table V
Pesticides in Ground Water
Celotex - Edgewater, NJ**

TRC Raviv Sample No.:		ACMW-1	ACMW-3	ACMW-4A	ACMW-4B	DMW-2	MW-K
Date Sampled:		02/04/04	02/04/04	02/03/04	02/03/04	02/03/04	02/04/04
Lab Sample No.:		01009-001	01009-005	00979-005	00979-006	00979-009	01009-003
Laboratory:		IAL	IAL	IAL	IAL	IAL	IAL
Pesticides (ppb)	GWQS						
alpha-BHC	0.02	ND	ND	ND	ND	ND	ND
beta-BHC	0.2	ND	ND	ND	ND	ND	ND
gamma-BHC	0.2	ND	ND	ND	ND	ND	ND
delta-BHC	—	ND	ND	ND	ND	ND	ND
Heptachlor	0.4	ND	ND	ND	ND	ND	ND
Aldrin	0.04	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	0.2	ND	ND	ND	ND	ND	ND
Endosulfan I	0.4	ND	ND	ND	ND	ND	ND
4,4'-DDE	0.1	ND	ND	ND	ND	ND	ND
Dieldrin	0.03	ND	ND	ND	ND	ND	ND
Endrin	2	ND	ND	ND	ND	ND	ND
Endosulfan II	0.4	ND	ND	ND	ND	ND	ND
4,4'-DDD	0.1	ND	ND	ND	ND	ND	ND
Endrin aldehyde	—	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	0.4	ND	ND	ND	ND	ND	ND
4,4'-DDT	0.1	ND	ND	ND	ND	ND	ND
Chlordane	0.5	ND	ND	ND	ND	ND	ND
Toxaphene	3	ND	ND	ND	ND	ND	ND

ND = Not Detected.

A/B = Duplicate sample

GWQS = NJDEP's Ground Water Quality Standard.

Bold indicates concentration above GWQS.

RCRA Area Quarterly Groundwater Sampling Results - February 2004

**Table VI
General Chemistry in Ground Water
Celotex - Edgewater, NJ**

TRC Raviv Sample No.:	ACMW-1	ACMW-3	ACMW-4A	ACMW-4B	DMW-2	MW-K
Date Sampled:	02/04/04	02/04/04	02/03/04	02/03/04	02/03/04	02/04/04
Lab Sample No.:	01009-001	01009-005	00979-005	00979-006	00979-009	01009-003
Laboratory:	IAL	IAL	IAL	IAL	IAL	IAL

General Chemistry (ppb)	GWQS						
Bicarbonate Alkalinity	--	NA	NA	NA	NA	NA	324,000
Chloride	250,000	NA	NA	NA	NA	NA	163,000
Sulfate	250,000	NA	NA	NA	NA	NA	1,180,000
Total Dissolved Solids	500,000	NA	NA	NA	NA	NA	2,140,000
Total Suspended Solids	--	NA	NA	NA	NA	NA	22,000
Total Cyanide	200	ND	ND	ND	ND	ND	ND
Total Recoverable Phenols	--	ND	ND	ND	ND	ND	ND

ND = Not Detected.

NA = Not Analyzed.

A/B = Duplicate sample

GWQS = NJDEP's Ground Water Quality Standard.

Bold indicates concentration above GWQS.



**Environmental Waste
Management Associates**

Corporate Headquarters:
100 Misty Lane
P.O. Box 5430
Parsippany, NJ 07054
phone (973) 560-1400
fax (973) 560-0400
website - www.ewma.com

Sent via Priority Fedex

July 24, 2002

FILE COPY

Mr. Peter Grogan
Project Manager
Dan Raviv Associates, Inc.
57 East Willow Street
Millburn, NJ 07041

**Re: Former Celotex Industrial Park Property
River Road, Edgewater, Bergen County
EWMA Project #202352**

Subject: All County RCRA Closure – Groundwater Monitoring Requirements

Dear Mr. Grogan:

Attached, please find copies/excerpts from the following EWMA documents (in chronological order) detailing past investigation and remediation activities, and pending groundwater monitoring activities required to obtain closure from NJDEP for the All County RCRA Area at the Edgewater site:

- August 2000: RCRA Hazardous Waste Management Closure Plan;
- October 2000: RCRA Closure Activities Progress Report #1;
- December 2000: RCRA Closure Activities Progress Report #2; and,
- April 2001: EWMA's Response to Comments – NJDEP Comment Letter dated March 15, 2001.

EWMA's August 2000 closure plan provides details on the proposed soil and groundwater investigation and remediation activities to seek closure of the RCRA Area. The October 2000 and December 2000 progress reports document closure activities related to the soil in the RCRA Area. As per EWMA's April 2001 response letter to NJDEP (pages 7-9), all closure activities related to soil have been completed and all information was subsequently provided to NJDEP. However, installation of four (4) groundwater monitoring wells, in addition to an existing well in the RCRA Area (MW-10), and quarterly monitoring was still pending at the time, as previously proposed in August 2000 closure plan (Figure 6).

In August 2001, EWMA completed the installation of the four (4) proposed groundwater monitoring wells (ACMW-1, ACMW-2, ACMW-3, and ACMW-4) in the RCRA Area. In December 2001, EWMA conducted site-wide groundwater sampling, including some of the wells in the RCRA Area (ACMW-1, ACMW-3, and ACMW-4). As per EWMA records, MW-10 and ACMW-2 were either permanently damaged or unavailable for sampling at the time. However, subsequent groundwater sampling/monitoring activities in this area were

Mr. Peter Grogan

July 24, 2002

Page 2 of 2

discontinued likely due to on-going construction activities limiting access and/or pending soil contamination issues.

NJDEP conditionally accepted EWMA's proposal presented in the October 2000 RIW (Phase II) report to sample all five (5) monitoring wells in the RCRA Area on a quarterly basis for a minimum of one (1) year for PP+40 analysis. This monitoring may be re-initiated and included in DRAI's proposed site-wide groundwater remedial investigation and monitoring plan, as per NJDEP's conditional acceptance of EWMA's proposal. The locations of the existing wells on the entire site, including the RCRA Area, and associated monitoring well logs were previously provided by EWMA to DRAI in a correspondence dated April 2, 2002.

Should you have any questions or require additional information, please do not hesitate to contact me at (973) 560-1400, ext. 155.

Sincerely,

Environmental Waste Management Associates, LLC



Ajay Kathuria, PE
Senior Project Engineer

Encl.

cc: Richard LaBarbiera, P.E., Edgewater Enterprises
Kevin Orabone, EWMA

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**RESOURCE CONSERVATION & RECOVERY ACT
HAZARDOUS WASTE MANAGEMENT FACILITY
CLOSURE PLAN**

**All County Environmental Service Corporation
1 River Road, Edgewater, NJ 07020**

Prepared in Accordance With Requirements of 40CFR Subpart G

August, 2000

Prepared by:

**Environmental Waste Management Associates, LLC
PO Box 5430
Parsippany, New Jersey 07054
EWMA Case No. 200957**

**HAZARDOUS WASTE MANAGEMENT FACILITY
CLOSURE PLAN**

**All County Environmental Service Corporation
1 River Road, Edgewater, NJ 07020**

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**HAZARDOUS WASTE MANAGEMENT FACILITY
CLOSURE PLAN**

**All County Environmental Service Corporation
1 River Road, Edgewater, NJ 07020**

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5	Post-Removal Verification Samples
6	Monitoring Well Locations

HAZARDOUS WASTE MANAGEMENT FACILITY CLOSURE PLAN

All County Environmental Service Corporation
1 River Road, Edgewater, NJ 07020

SECTION 1

GENERAL INFORMATION

All County Environmental Service Corp. ("All County"), under the Resource Conservation and Recovery Act (RCRA) regulations, was a hazardous waste treatment storage and disposal facility that was required to prepare a written *Closure Plan*. Since All County went out of business without complying with this requirement, and portions of the unit have already been removed, this *Closure Plan* is intended to document/serve as the written *Closure Plan* until the closure process is completed.

All County operated a waste reclamation operation within the confines of the former Celotex Industrial Park in the early 1980s. The operation involved approximately nine tanker trucks that collected solid waste that was pumped into two 150,000-gallon aboveground storage tanks (ASTs) before being shipped off-site for final disposal. The company ceased operation at this site before receiving a final approval and without preparing its written closure plan. United States Environmental Protection Agency ("USEPA") regulations, at 40CFR265 Subpart G, require the development of a written *Closure Plan*, which details the steps necessary to permanently close the two ASTs and associated appurtenances. After the operation was shut down and abandoned, the ASTs were emptied and decontaminated by the property owner. The New Jersey Department of Environmental Protection (NJDEP) and representatives from Region II of the USEPA Toxic Substances Control Program supervised the decontamination and waste removal process. However, a written *Closure Plan* was not available for reference during the AST decontamination and waste removal process.

Except for the concrete AST containment structure, all of the structures, tanks, and vehicles associated with the All County operation have already been removed from this site. Although portions of the closure process have already been implemented, this closure plan describes the entire process in accordance with instructions issued by the NJDEP.

The remaining structure associated with the All County facility/operation is located within the property known currently as the former Celotex Industrial Park, 1 River Road, Edgewater, NJ (a.k.a. future site of the Promenade Mixed Use Development). The purpose of this document is to document/summarize closure activities that have taken place to date and bring this facility into compliance with applicable federal regulations. Figure 1 shows the site location depicted on an excerpt from the United States Geological Survey (USGS) 7.5-minute Central Park, NY-NJ quadrangle.

HAZARDOUS WASTE MANAGEMENT FACILITY CLOSURE PLAN

All County Environmental Service Corporation
1 River Road, Edgewater, NJ 07020

EPA ID# NJD991291063

Name of Facility: All County Environmental Service Corp.

Facility Operator: Same

Mailing Address: c/o Edgewater Associates, LLC
525 River Road
P.O. Box 318
Edgewater, New Jersey, 07020

This *Closure Plan* is designed to minimize or eliminate threats to human health and the environment, and to ensure that the facility will not require further maintenance and controls. It will be designed to prevent the escape of hazardous materials through leachate, contaminated rainfall or waste decomposition products released to the ground or surface waters.

SECTION 2

FACILITY DESCRIPTION

2.1 Background

The subject facility was originally constructed to store #2 fuel oil used by a Gypsum Board mill that operated on property adjoining this facility. The tanks were situated on a concrete pad surrounded by a five-foot high concrete containment structure. The heating oil was transferred via overhead pipes to the adjacent mill building.

All County made improvements to the facility and converted it to a truck loading/unloading point where tanker truck waste shipments were consolidated in two 150,000-gallon ASTs. The tanker truck loading and unloading pad, which was also surrounded by a concrete containment dike, was located on the south side of the ASTs. However, during AST decommissioning and waste removal, a temporary staging/off-loading area was established on the west side of the containment unit. Due to the possibility of spills or discharges during the waste removal process, this area has been specifically included in this *Closure*

HAZARDOUS WASTE MANAGEMENT FACILITY CLOSURE PLAN

All County Environmental Service Corporation
1 River Road, Edgewater, NJ 07020

Plan. Figure 2 shows the location and layout of the All County facility based on available data.

The exact boundaries of All County's leasehold is not well defined through historical documentation. However, for the purpose of this *Closure Plan* the facility will include the ASTs, ancillary waste transfer equipment and the tanker parking area noted on aerial photographs. The total area addressed under this closure plan will be 22,500 square feet, which includes the 5,000 square foot AST containment area and the truck unloading pad.

USEPA Region II supervised the removal of PCB-containing waste oil and the decommissioning and removal of the ASTs under the TSCA. Correspondence with USEPA representatives administering the TSCA program is included herein (**Attachment 1**) since this *Closure Plan* addresses decommissioning and waste disposal activities. Laboratory reports from wipe samples collected following the tank decommissioning are included also (**Attachment 2**).

2.2 Closure Objectives

The primary closure objective is to close this unit pursuant to 40CFR 265.197.

All County halted operations at this site in the mid-1980s. Closure will allow USEPA to cancel its TSD Interim Status application and permit the land to be used for other purposes. Proper closure will minimize or eliminate the need for further maintenance, and control to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface water or atmosphere.

SECTION 3

WASTE INVENTORY

3.1 Tank Storage

The maximum quantity of waste that could be stored at this site is 300,000 gallons. There are no other storage facilities for hazardous waste on-site, and there are no facilities for treating or the disposal of hazardous wastes. Waste classification records from All County were not available. Therefore, the

HAZARDOUS WASTE MANAGEMENT FACILITY CLOSURE PLAN

All County Environmental Service Corporation
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classification of this waste was determined via testing during the decontamination and waste disposal process.

On January 17, 1997 Enviro Sciences, Inc. ("ESI") collected waste classification samples from sludge remaining at the bottom of each of the ASTs prior to its removal. The samples were tested for volatiles, semivolatiles, metals, pesticides, and herbicides using EPA Toxicity Characteristic Leachate Procedure ("TCLP") methodology. The samples were also tested for PCBs RCRA characteristics. ESI's analytical data indicated that several chemical substances exceeded hazardous waste levels in the sludge. Specifically, Based on this data, the material was classified as a RCRA hazardous waste due to the presence of 2-butanone ("MEK") above 200 mg/l, cadmium above 1.0 mg/l and lead above 5 mg/l (i.e. the applicable hazardous waste criteria). The waste classification data package is included as **Attachment 3**.

Other sampling was performed on the sludge material in the ASTs by Roy F. Weston, Inc. to profile the contaminants present in the sludge. These samples were tested for volatile organic compounds plus a forward library search (VO+10), semivolatile (aka base neutral) acid extractable compounds with a forward library search (BNA+25), pesticides, metals, PCBs and RCRA characteristics. Based on a review of this data (provided by NJDEP), after excluding the expected petroleum-related compounds (i.e. fuel hydrocarbons) that would be present in ordinary waste oil, the following organic chemicals were present:

- 1.) Volatile organics including methylene chloride, MEK, acetone, 1,1,1-trichloroethene, trichloroethene, and tetrachloroethene;
- 2.) Semivolatile organics including isophorone, dimethyl phthalate, diethyl phthalate, di-n-butylphthalate, butyl benzylphthalate, bis (2-ethylhexyl) phthalate, and di-n-octyl phthalate; and
- 3.) Pesticides including heptachlor epoxide, endosulfan II, and endrin aldehyde.

In addition, 21 of 23 inorganic analytes were detected by the laboratory analysis and the laboratory reports indicated that the material exhibited the characteristic of ignitability. This list was prepared based on summary data tables provided by the NJDEP, which are included as **Attachment 4**.

HAZARDOUS WASTE MANAGEMENT FACILITY CLOSURE PLAN

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For the purpose of this Closure Plan, the unexplained presence of the following chemical compounds will be considered evidence of contamination from a historical discharge of hazardous waste.

- methylene chloride
- MEK
- acetone
- 1,1,1-trichloroethene
- trichloroethene
- tetrachloroethene
- isophorone
- dimethyl phthalate
- diethyl phthalate
- di-n-butylphthalate
- butyl benzylphthalate
- bis (2-ethylhexyl) phthalate
- di-n-octyl phthalate
- heptachlor epoxide
- endosulfan II
- endrin aldehyde

SECTION 4

CLOSURE ACTIVITIES

4.1 Overview

The final closure must be carried out in three stages: 1.) Decontamination and removal of the two storage tanks and associated structures; 2.) Verification sampling and removal/replacement of any contaminated media (if feasible); and 3.) groundwater monitoring and remediation (if necessary).

HAZARDOUS WASTE MANAGEMENT FACILITY CLOSURE PLAN

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4.1.1 Decontamination

Since the first stage of this process is already partially complete, the decontamination and removal process must take place in two separate stages. Waste inside the ASTs was characterized and taken off-site for disposal, and the ASTs themselves were also decontaminated and shipped off-site for disposal. The decontamination and waste removal process is documented/described in letters included in **Appendix 1**. Waste disposal documentation and laboratory analytical results from the previous work have been supplied to USEPA and NJDEP previously. However, this documentation will be re-submitted as part of the comprehensive closure report that will be prepared for the All County facility.

4.1.2 Verification

The second stage of the decontamination and removal process will involve testing the remaining concrete secondary containment structure, and any sediment or rainwater that has accumulated inside it to determine if it is uncontaminated by hazardous waste from this unit. In addition, subsoils will be investigated to screen for any contamination. Contamination that is attributable to a discharge of hazardous waste, and not attributable to background conditions at the site, which include the presence of contaminants associated with petroleum discharges containing no hazardous chemicals, will be removed and managed as hazardous waste. Post excavation soil samples will be collected to verify complete removal of the impacted soils. Refer to section 4.4 for specific details regarding sampling procedures that will be implemented as part of the verification process.

If soil contamination exists as a result of discharges from this unit, and its removal is not feasible, then the contingency plan described in Section 8 of this document will be implemented. NJDEP/USEPA approval will be obtained before executing the contingency plan.

4.1.3 Groundwater Monitoring

Since previous environmental investigations conducted at this facility detected hazardous chemicals in ground water, this Closure Plan assumes that groundwater monitoring will be required. Refer to section 4.4.3 for details regarding the groundwater monitoring program.

HAZARDOUS WASTE MANAGEMENT FACILITY CLOSURE PLAN

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4.2 Mobilization

The contractor will provide a field team with adequate to accomplish all remaining closure tasks. The equipment and manpower necessary to complete these tasks will be determined immediately prior to mobilization.

4.2.1 Personnel

The contractor employed to carry out this phase of the plan will field sufficient numbers of OSHA trained and experienced workers to complete the task.

4.2.2 Equipment

The contractor will be responsible for the mobilization and demobilization of any and all equipment needed to accomplish this task. A staging area will be set aside for supplies and equipment, and identified as the Support Zone.

4.2.3 Decontamination

A zone, lying between the Support Zone and the delineated site, will be set aside for decontaminating equipment and supplies, and for the disposal of spent supplies.

4.2.4 Utilities

Electric, telephone and potable water and portable latrines will be made available at the site prior to the start of work.

4.3 Site Preparation

Before work begins, the site and surrounding areas will be modified to facilitate the work. These modifications will include:

- Command post and decontamination area to be set up
- Equipment staging area to be set up
- Storage area for supplies to be set up
- Installation of a silt fence, to surround the work area

HAZARDOUS WASTE MANAGEMENT FACILITY CLOSURE PLAN

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- Access roadways will be improved, as needed, to allow safe access of heavy equipment to the site.
- Debris and fill materials will be removed from the ground surface and staged separately for evaluation.

4.4 Closure Specifics

4.4.1 Tank Removal

Refer to correspondence included as **Attachment 1** for specific details regarding the tank removal process already implemented. The two 150,000-gallon storage tanks were drained and decontaminated as approved by USEPA TSCA. The washings were collected and transported to a pre-designated disposal facility for final disposal. The tanks were cut up, removed and disposed. Since these activities were already performed, this process is already complete. Waste disposal documentation will be provided with the final closure report.

4.4.2 Containment Decontamination/Removal

Debris and rainwater have accumulated in the containment unit since the ASTs were removed. These materials must be tested to determine if they have been contaminated by the hazardous waste. The debris will be removed to an isolated staging area within the facility boundaries where it will be tested to determine if it has become contaminated by hazardous waste from the unit. Since the material is presumed to be non-hazardous at this time, the material will be staged on and covered by plastic until the test results are available and a determination can be made regarding the proper handling of this material. Any standing water in the containment unit will be containerized and tested to determine if it has become contaminated by hazardous waste from the unit. Proper disposal arrangements will be made based on the analytical data. Concrete chip samples will be collected from the footprint of each tank and from the area between the former tanks (3 total). Subsequently, the concrete containment structure will be demolished and then tested to determine if it has become contaminated by hazardous waste from the unit. The concrete will be covered with plastic until the analytical data is available and the proper disposition of this material can be determined. If testing determines that these materials are uncontaminated they will be left on-site. However, if any of these materials contain detectable evidence of hazardous chemical constituents that are not attributable to background contamination, and are listed herein as

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constituents of the material formerly stored in the All County ASTs, then that material must be taken to an appropriate RCRA disposal facility.

Please refer to **Table 1** for quality assurance data and analytical testing parameters.

4.4.3 Soil Removal

Soils within the facility boundaries will be tested to verify that they are uncontaminated with hazardous constituents from the All County operation. This will include the area where surficial discharges were noted when two Baker tanks were staged during the tank cleaning process in March/April 1998. Since some portions of the All County area received fill material after the operation ceased, some soil samples will need to be collected using test pits. Test pits will be excavated at a frequency one per 900 square feet of area. Preliminary data already indicates that some impacted soils are present (refer to **Table 2**). However, additional testing will be necessary to confirm the accuracy of this data and determine the extent of contamination. If evidence of contamination is present, and a removal action is feasible, all impacted soil and/or materials will be removed and taken to an off-site disposal facility in accordance with RCRA procedures. The amount of subsoil that must be removed cannot be estimated until this investigation is completed. **Figure 3** shows current site conditions and the location of all previously collected samples. **Figure 4** shows the grid pattern that will be used to investigate this area for evidence of contamination attributable to the hazardous waste operation. Please refer to **Table 1** for quality assurance data and analytical testing parameters.

After the concrete containment slab is removed, or after the removal action is conducted, the bottoms and sides of each excavation will be sampled to verify that decontamination has been achieved. Post excavation samples will be collected at a frequency of one per 30 linear feet along the top of each excavation sidewall and one per 900 square feet across the bottom of the excavation. Please refer to **Table 1** for quality assurance data and analytical testing parameters. **Figure 5** indicates planned post-excavation soil sample locations based on existing data. If additional contamination is discovered, then additional post-excavation samples will be collected following the methodology outlined herein.

At the completion of the soil removal phase and upon laboratory verification that applicable clean-up standards have been met, clean fill will be returned to

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the excavated areas. For the purpose of this *Closure Plan*, the method detection limit will define clean zones for contaminated soils other than background contamination as long as the method detection limits fall below the New Jersey Soil Cleanup Criteria. Contaminated soils and associated structures will be shipped to an approved landfill for final disposal as hazardous waste. Material arising from the decontamination of equipment used in the removal of contaminated soils will also be included in the hazardous waste shipment(s). If a removal action (i.e. excavation) is not feasible as a remedial alternative, NJDEP general guidance soil cleanup criteria will be used to delineate hazardous constituents related to All County operations in soils.

4.4.3 Monitoring Wells

One monitoring well has already been installed at this facility. Four additional wells will be installed, bringing the total to five. These wells will be placed so that groundwater may be monitored from a point upgradient of the facility, and from four downgradient points. Figure 6 shows the location of the existing monitoring well (MW-10) and the four proposed locations. Additional wells may be required if it is determined that ground water flow direction can not be properly determined.

The wells will be monitored quarterly for a period of at least one-year to determine if groundwater contamination has resulted from this facility.

4.4.4 Monitoring Well Construction

A New Jersey licensed well driller will install the unconsolidated monitoring wells, which will be constructed pursuant to N.J.S.A. 58:4A-4.1 et seq.

SECTION 5

GROUNDWATER SAMPLING & ANALYSIS

HAZARDOUS WASTE MANAGEMENT FACILITY CLOSURE PLAN

**All County Environmental Service Corporation
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5.0 Sample Collection Procedures

Groundwater sampling will be carried out in accordance with the provisions contained in the NJDEP Field Sampling Procedures Manual, latest edition.

5.1 Sample Collection Frequency

Groundwater samples will be collected from each of the wells on a quarterly basis for at least one year. Subsequently, additional sampling will be conducted at a frequency to be determined in conjunction with the NJDEP Case Manager.

5.2 Analysis

Preliminary testing will include PP+40. However, subsequent testing will only include the parameters necessary to monitor contaminants found during the initial screening. Groundwater samples will be submitted to a New Jersey Certified Laboratory for analysis. Please refer to **Table 1** for quality assurance data and analytical testing parameters. In addition, please note that the quarterly sampling budget for this project assumes that after the first round the ground water parameters will only include VO+10 and BN+15. This assumption is based on historical testing and the physical properties of PCBs, pesticides, and herbicides.

SECTION 6

CERTIFICATIONS

6.1 Certification of Closure

1. Within 60 days of achieving closure, the property owner will certify to the NJDEP Case Manager and EPA Regional Administrator by certified mail, that the closure was completed in accordance with the terms and specifications in the approved closure plan. The certification will be signed by the property owner and an independent Professional Engineer.
2. The property owner will produce a plat map, prepared by a professional land surveyor, showing the position of the hazardous waste site, keyed to benchmarks, and prominently displaying a note, stating that this ground must not be disturbed.

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6.2 Post-Closure Activities

6.2.1 Post-Closure Care & Use of Property

Following the successful removal of contaminated soils, groundwater will be monitored through one upgradient and four downgradient wells that will be installed prior to final closure. Monitoring will continue until groundwater parameters meet currently acceptable USEPA/NJDEP criteria, or the Regional Administrator sets an alternative compliance level for this site.

If it is determined that closure will be completed with waste in place (not clean closed) then either a NJPDES Permit or an EPA order shall institute the Post Closure requirements. This will be determined after the Remedial Investigation (RI) and any necessary Remedial Action (RA) has been completed.

6.2.2 Post-Closure Notices

In accordance with 40 CFR 264.119, property owner will submit to the local Zoning Board and the EPA Regional Administrator, a record of the location, type and amount of hazardous waste that was removed from the subject site.

Within 60 days of closure certification, the owner will record on the property deed, in such a way that any future buyers of this property will be informed that: (i) the property has been used to manage hazardous wastes; (ii) current and future uses are restricted under 40 CFR, Subpart G, and (iii) that the survey plat and record of the hazardous waste information in section (a), above, has been transmitted to the Zoning Board.

The property owner will also certify to the Regional Administrator that the deed notice required in section (b), above, has been recorded.

6.2.2.1 Post-Closure Care Completion

The property owner will notify the Regional Administrator by certified mail, that the post-closure care activities have been carried out according to the approved post-closure plan. The certification must be signed by both the property owner and an independent registered Professional Engineer.

HAZARDOUS WASTE MANAGEMENT FACILITY CLOSURE PLAN

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1 River Road, Edgewater, NJ 07020

SECTION 7

FINANCIAL RESPONSIBILITY

7.1 Closure Costs

The estimated costs for developing and submitting a *Closure Plan*, as well as the costs of surveying, sampling, transportation and disposal of contaminated soil and concrete (assuming no more than 500 tons), monitoring and other closure and post-closure activities is \$205,120.00. A detailed breakdown of these costs is given in Table 4.

Under Administrative Consent Order (ACO) No. NJD981876642, Edgewater Enterprises, LLC and Edgewater-River Corporation have posted a 1 million dollar performance bond. The ACO was issued by the NJDEP pursuant to N.J.S.A. 13:1D-1 et seq., N.J.S.A. 58:10B-1 et seq., and the Water Pollution Control Action, N.J.S.A. 13:1E-1 et seq., and the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq. This Remediation Funding Source is required to be in effect for the period of time that is necessary to conduct the remediation of this property as directed by the NJDEP. Therefore, this should satisfy the financial responsibility requirement of 40CFR, Subpart H.

The remediation funding source will remain in place and become part of the Post Closure Permit or EPA Order whichever is used, should Post Closure become necessary.

HAZARDOUS WASTE MANAGEMENT FACILITY CLOSURE PLAN

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SECTION 8

CONTINGENCY PLAN

In the event that the site cannot practicably be decontaminated or removed, the property owner will then treat the site as though it were a landfill, and will perform applicable post-closure care activities as required under 40CFR264.310:

1. In accordance with EPA and NJDEP approvals, the site will be capped with a final cover that is designed to minimize the migration of liquids through the landfill over time.
2. The site will function with minimal maintenance.
3. The site will promote drainage and will minimize abrasion or erosion of the cap.
4. The site will accommodate settling and subsidence, so that the cap's integrity will be preserved.

The proposed development plans for this site include a paved automobile parking garage that will be situated directly over the All County Facility. Storm water drainage will be controlled and the parking garage will be properly designed to prevent settling, subsidence, or cracking that would diminish the integrity of the cap.

After final closure, the property owner will comply with all post-closure care requirements, and property use restrictions (40 CFR 264.117-120). During the post-closure care period, five groundwater wells will be monitored until either acceptable groundwater levels for the contaminant(s) in question have been reached, or until the contaminants are no longer detectable.

Please note that background soil and ground water contamination is present on this property. Therefore, a site-wide remediation strategy has been proposed that will allow

**HAZARDOUS WASTE MANAGEMENT FACILITY
CLOSURE PLAN**

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contamination levels to remain in inaccessible areas at levels exceeding the NJDEP's unrestricted soil remediation standards. This remediation strategy includes imposing a Deed Notice and a ground water Classification Exception Area (CEA) on the All County facility and the entire surrounding property.

Table 1: Analytical Methods and Quality Assurance Summary

Site: All County Environmental Service Corporation
Location: 1 River Road, Edgewater, NJ, 07020
Case No.: EWMA Case No.: 200957

Area of Concern	Matrix	Sample ID	Parameter	Sample Container	Sample Volume	Sample Preservation	Maximum Sample Holding Time	Analytical Method	
Suficial Fill	Soil	ACFILL-1	PP+40	1-500ml amber, glass jar ,	500ml,	cool, 4°C, dark	7 days	*EPA SW 846	
				1-2oz clear, glass jar, 1-8oz clear, glass jar	2oz, 8oz	cool, 4°C, dark, Methanol	4 days	EPA 8260B	
Concrete	Concrete	ACCON-1 - ACCON 3	PP+40	1-500ml amber, glass jar ,	500ml,	cool, 4°C, dark	7 days	*EPA SW 846	
				1-2oz clear, glass jar, 1-8oz clear, glass jar	2oz, 8oz	cool, 4°C, dark, Methanol	4 days	EPA 8260B	
Rain Water	Aqueous	ACSW-1	PP+40	VO+15	2ea-40ml vials, amber glass	80ml	pH<2 w/HCL (blue), 4°C	14 days	EPA 8260
				Semivolatiles-	2ea-1 Liter, amber, glass jar	2 Liters	cool, 4°C, dark	7 days	EPA 8270
				PCB's	5ea-1 Liter, amber, glass jar	5 Liters	cool, 4°C, dark	7 days	EPA 8080
				Pesticides	5ea-1 Liter, amber, glass jar	5 Liters	cool, 4°C, dark	7 days	EPA 8080
				P.P. Metals	1ea-250ml (plastic)	250ml	pH<2 w/HNO3 (red), 4°C	~	EPA 7000, 6010, 200
				Cyanide, Total	1ea-500ml, amber glass jar	500ml	NaOH (green) to pH12 & .6g Ascorbic Acid	14 days	EPA 9010
				Phenols	1ea-500ml, amber glass jar	500ml	pH<2 w/H2SO4 (yellow), 4°C	28 days	EPA 9065
				Subsurface Soil	Soil	AC-1 - AC-23	PP+40	1-500ml amber, glass jar , 1-2oz clear, glass jar, 1-8oz clear, glass jar	500ml, 2oz, 8oz
		cool, 4°C, dark, Methanol	4 days					EPA 8260B	
Soil	ACPE-1 - ACPE-16	PP+40	1-500ml amber, glass jar , 1-2oz clear, glass jar, 1-8oz clear, glass jar		500ml, 2oz, 8oz	cool, 4°C, dark	7 days	*EPA SW 846	
						cool, 4°C, dark, Methanol	4 days	EPA 8260B	
Groundwater	Aqueous	ACMW-1, 2, 3, 4 & MW-10	PP+40	VO+15	2ea-40ml vials, amber glass	80ml	pH<2 w/HCL (blue), 4°C	14 days	EPA 8260
				Semivolatiles-	2ea-1 Liter, amber, glass jar	2 Liters	cool, 4°C, dark	7 days	EPA 8270
				PCB's	5ea-1 Liter, amber, glass jar	5 Liters	cool, 4°C, dark	7 days	EPA 8080
				Pesticides	5ea-1 Liter, amber, glass jar	5 Liters	cool, 4°C, dark	7 days	EPA 8080
				P.P. Metals	1ea-250ml (plastic)	250ml	pH<2 w/HNO3 (red), 4°C	~	EPA 7000, 6010, 200
				Cyanide, Total	1ea-500ml, amber glass jar	500ml	NaOH (green) to pH12 & .6g Ascorbic Acid	14 days	EPA 9010
				Phenols	1ea-500ml, amber glass jar	500ml	pH<2 w/H2SO4 (yellow), 4°C	28 days	EPA 9065

~Please note that groundwater monitoring (following the initial screening) will only include parameters required based on the results of the initial sampling event.

Notes:

***EPA SW 846 Includes:**

VO - Volatile Organic Compounds, EPA Method 624

Semivolatiles- EPA Method 625

PPM - Priority Pollutant Metals, EPA Method 6010

PCB - Polychlorinated Biphenyls, EPA Method 608

Herbicides, EPA Method 8150

Pesticides, EPA Method 608

RCRA QASUM_tbl.xls

L / ml. - Liter / milliliter.

EPA - Environmental Protection Agency method.

Cyanide, EPA Method 335.2, 335.3

Phenol, EPA Method 420.1

Detailed analytical methods and quality assurance indicator table can be found on pgs. 24-73 of the May 1992 NJDEP

Field Sampling Procedures Manual.

Environmental Waste Management Associates, LLC

Page 1 of 1

Table 2: RESULTS SUMMARY - MW-10

Site: All County Environmental Service Corporation
Location: 1 River Road, Edgewater, New Jersey, 07020
Case No.: EWMA Case No.: 200957

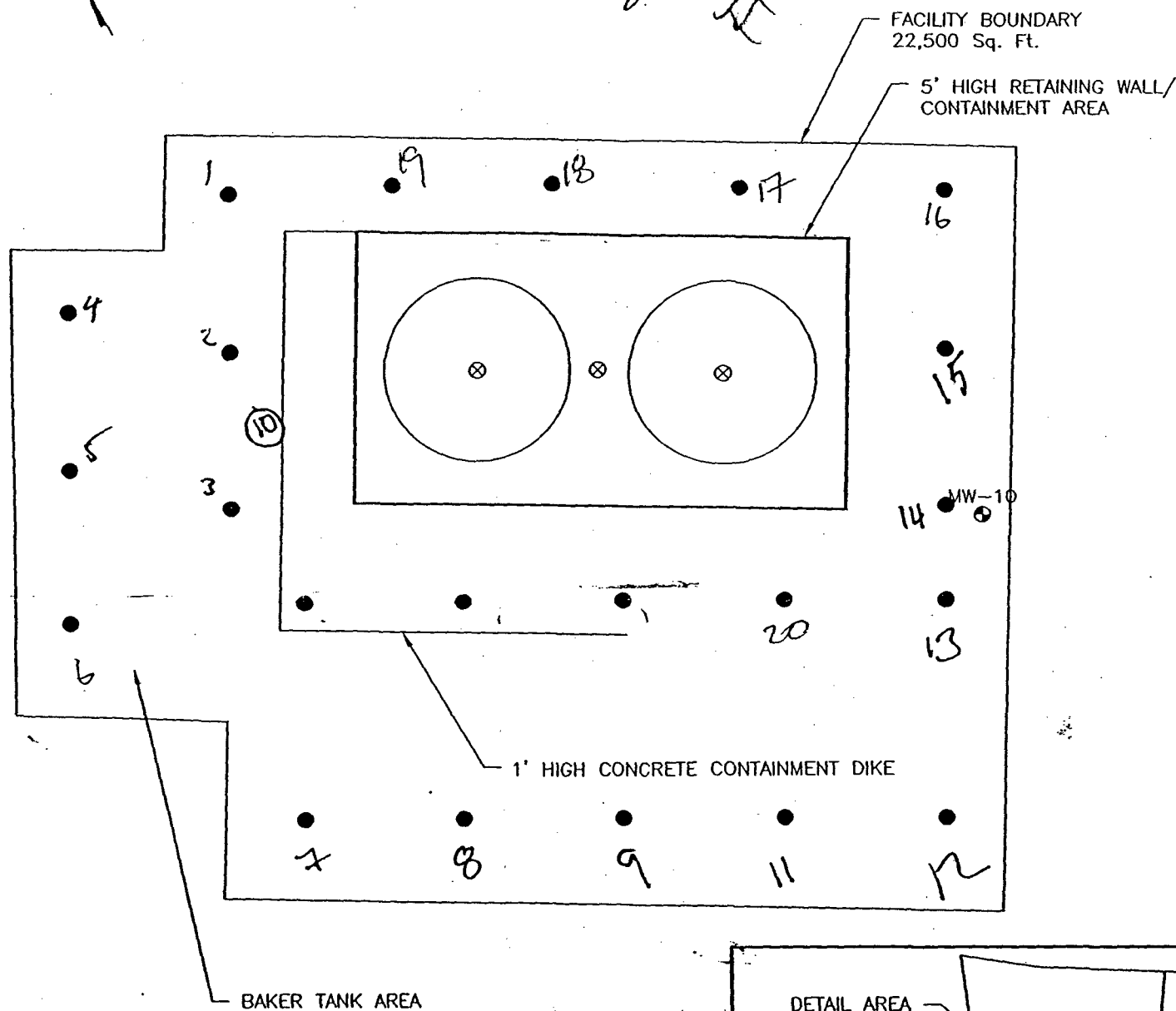
Sample ID:	MW-10
Lab ID:	7695-008
Area of Concern:	
Sample Date:	21-Dec-99
Sample Media:	Aqueous
Units:	ppb
TARGETED VOs:	
1,1-Dichloroethane	10.3
Benzene	1.16
Toluene	ND
Chlorobenzene	0.3
Ethylbenzene	0.296
Xylenes (total)	ND
Total Targeted VOs:	12.056
Total TICs:	3.1
TOTAL:	15.156
METALS:	
Arsenic	15.1

Notes:

VOs - Volatile Organic Compounds.
ppb - parts per billion; micrograms per liter.
ND - not detected.
TICs - Tentatively identified compounds.

MW-35

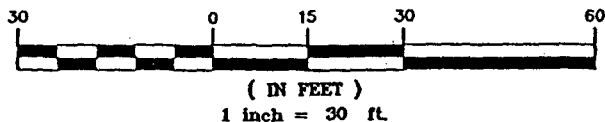
like on like
on



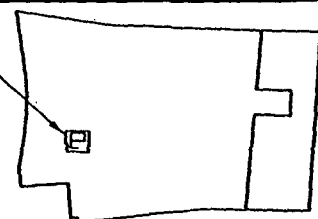
LEGEND

- MONITORING WELL LOCATION
- PROPOSED SOIL SAMPLE LOCATION ("AC" SERIES)
- ⊗ CONCRETE CHIP SAMPLE LOCATION

GRAPHIC SCALE



DETAIL AREA



SITE PLAN SHOWING DETAIL AREA

Environmental Waste Management Associates, LLC

P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400



SCALE: 1" = 30'
DATE: 8/14/00

PROJECT#
200957

DRAWN BY: DLW
CHECKED BY: CK

FILED: 8/14/00, 2009000, 20073-A, March 2009, 20073402.dwg

PRE-CLOSURE SAMPLING PLAN
ALL COUNTY ENVIRONMENTAL FACILITY
1 RIVER ROAD
EDGEWATER, NEW JERSEY

FIGURE#

4

Table 3:
Pre-Removal Verification Samples
Site:
All County Environmental Service Corporation
Location:
1 River Rd., Edgewater, NJ
Case No.:
EWMA Case # 200754

Sample ID	PT1	PT2	PT3	PT4	PT5	C-70-1	C-70A-2	C-71-1	C-71-2
Lab ID	47139	47140	47141	47236	47237	1485-03	1485-04	1485-05	1485-06
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Date	6/10/98	6/10/99	6/10/99	6/12/98	6/12/98	4/15/97	4/15/97	4/18/97	4/18/97
Sample Depth (feet)	8.5-9.0	0.5-1.0	0.5-1.0	0.0-0.5	0.0-0.5	1.0-1.5	6.0-6.5	0.5-1.0	5.0-5.5

Volatiles (ppm)

1,2-Dichloroethane	1.4	0.75	0.74	0.75	1.1	~	~	~	~
Methylene Chloride	0.79	1.7	2.4	0.63	1.3	~	~	~	~
Trichloroethene	0.79	0.54	0.74	10.4	2.7	~	~	~	~
Acetone	0.58	1.4	2.4	2.4	1.8	~	~	~	~
2-Butanone	ND	4.7	ND	ND	ND	~	~	~	~

Semivolatiles (ppm)

bis(2-Ethylhexyl)phthalate	0.42	6	ND	3.4	49.2	ND	ND	25.8	ND
Butylbenzylphthalate	ND	19.1	ND	1.1	7.5	ND	ND	2.19	ND
Di-n-butylphthalate	ND	ND	ND	ND	7.2	ND	ND	ND	ND
Di-n-octylphthalate	ND	ND	ND	ND	1.3	ND	ND	ND	ND

Metals (ppm)

Arsenic	2.7	32.1	49.9	6.7	11.9	~	~	~	~
Beryllium	0.57	0.33	0.32	0.12	7.2	~	~	~	~
Cadmium	0.59	1.1	0.63	0.22	46.9	~	~	~	~
Chromium	14	17.6	16.9	11.7	235	~	~	~	~
Lead	146	1180	225	716	3110	~	~	~	~
Selenium	0.49	3.4	2.5	46.4	531	~	~	~	~

NOTES

~ = Sample not analyzed for
ND = Not detected at the MDL

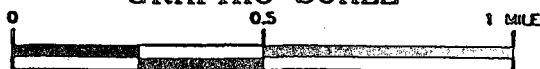
TABLE 4
ESTIMATED RCRA CLOSURE COSTS

	Units	Unit Costs	Lump Sum Estimate	Provided by Client	Cost
Closure Plan			\$5,000.00		\$5,000.00
Remedial investigation					
Mark-out survey			\$2,000.00		\$2,000.00
20 test pits/soil samples			\$6,000.00		\$6,000.00
PP+40 testing (each)	20	\$650.00			\$13,000.00
Field screening/sampling			\$2,000.00		\$2,000.00
Remediation					
Concrete & soil removal			\$6,000.00		\$6,000.00
Materials (plastic, fencing, etc.)			\$1,000.00		\$1,000.00
Post Remediation site assessment					
Soil sampling	16	\$650.00			\$10,400.00
Well installation	4	\$2,000.00			\$8,000.00
PP+40 testing (each)	5	\$650.00			\$3,250.00
Well sampling	1	\$1,600.00			\$1,600.00
Closure Report			\$5,000.00		\$5,000.00
				Site Closure Subtotal	\$63,250.00
Loading, transportation and disposal (tons)	500	\$225.00		Off-Site Disposal Subtotal	\$112,500.00
Post Closure Monitoring					
Initial Evaluation					
First well sampling (5 well event)	1	\$1,600.00			\$1,600.00
PP+40 testing (wells & QA/QC blanks)	7	\$650.00			\$4,550.00
				Initial Evaluation Subtotal	\$6,150.00
Annual Monitoring					
Additional well sampling rounds (5 well event)	4	\$1,600.00			\$6,400.00
VO+10 & BN+15 testing (wells & QA/QC blanks)	28	\$315.00			\$8,820.00
Monitoring Reports	4	\$2,000.00			\$8,000.00
				Post Closure Monitoring Subtotal	\$23,220.00
				GRAND TOTAL	\$205,120.00



NEW JERSEY
QUADRANGLE LOCATION

GRAPHIC SCALE



(IN MILES)

Environmental Waste
Management
Associates, LLC
P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400



SCALE:
1" = 2,000'
DATE:
3/15/00

PROJECT
200957

DRAWN BY: RR
CHECKED BY: CK

SITE LOCATION
ALL COUNTY ENVIRONMENTAL FACILITY
1 RIVER ROAD
EDGEWATER, NEW JERSEY

FIGURE 1

SOURCE: USGS CENTRAL PARK, N.Y.- N.J. 7.5 MINUTE QUADRANGLE

34

MW-35

FACILITY BOUNDARY
22,500 Sq. Ft.

5' HIGH RETAINING WALL/
CONTAINMENT AREA

MW-10

1' HIGH CONCRETE CONTAINMENT DIKE

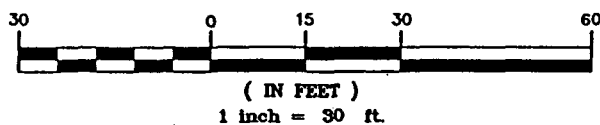
LEGEND

⊕ MONITORING WELL LOCATION

DETAIL AREA

SITE PLAN SHOWING DETAIL AREA

GRAPHIC SCALE



**Environmental Waste
Management
Associates, LLC**

P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400



SCALE: 1" = 30'
DATE: 3/14/00

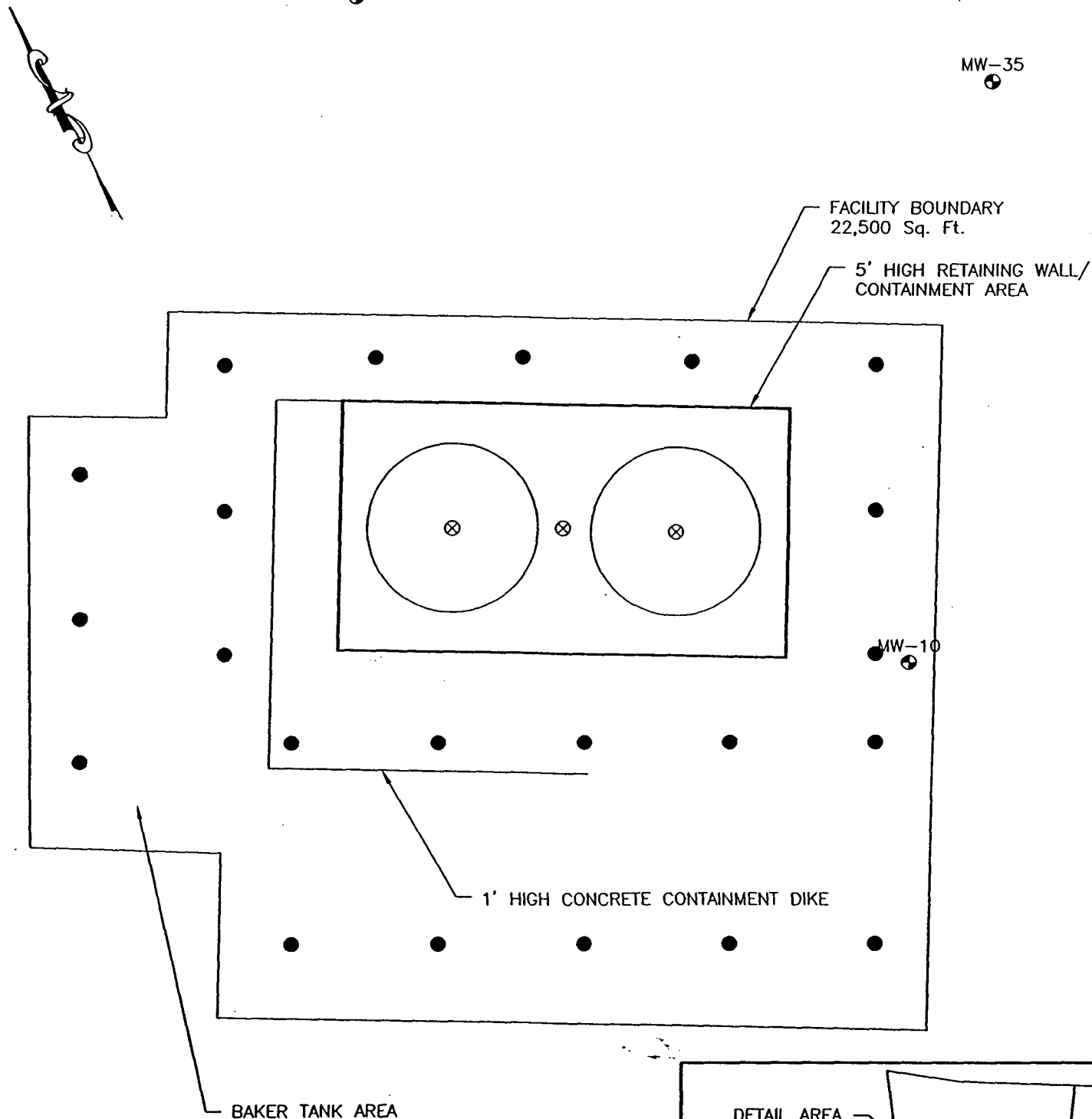
PROJECT#
200957

DRAWN BY: DLW
CHECKED BY: CK

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SITE PLAN
ALL COUNTY ENVIRONMENTAL FACILITY
1 RIVER ROAD
EDGEWATER, NEW JERSEY

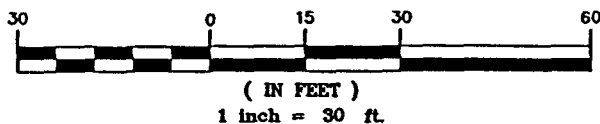
FIGURE#
2



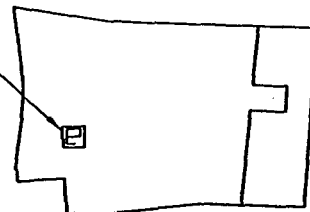
LEGEND

- ⊙ MONITORING WELL LOCATION
- PROPOSED SOIL SAMPLE LOCATION ("AC" SERIES)
- ⊗ CONCRETE CHIP SAMPLE LOCATION

GRAPHIC SCALE



DETAIL AREA



SITE PLAN SHOWING DETAIL AREA

Environmental Waste Management Associates, LLC

P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400



SCALE: 1" = 30'
DATE: 8/14/00

PROJECT#
200957

DRAWN BY: DLW
CHECKED BY: CK

FILE: k:\drawings\200957\200754.dwg March 2005 200754.dwg

PRE-CLOSURE SAMPLING PLAN
ALL COUNTY ENVIRONMENTAL FACILITY
1 RIVER ROAD
EDGEWATER, NEW JERSEY

FIGURE#
4

MW-34

MW-35

FACILITY BOUNDARY
22,500 Sq. Ft.

5' HIGH RETAINING WALL/
CONTAINMENT AREA

MW-10

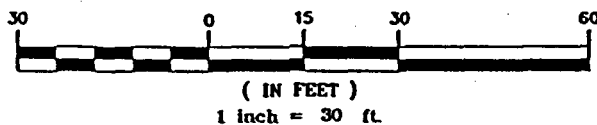
1' HIGH CONCRETE CONTAINMENT DIKE

LEGEND

● MONITORING WELL LOCATION

● PROPOSED SOIL SAMPLE LOCATION ("ACPE" SERIES)

GRAPHIC SCALE



DETAIL AREA

SITE PLAN SHOWING DETAIL AREA

**Environmental Waste
Management
Associates, LLC**

P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400



SCALE: 1" = 30'

DATE: 3/14/00

DRAWN BY: DLW
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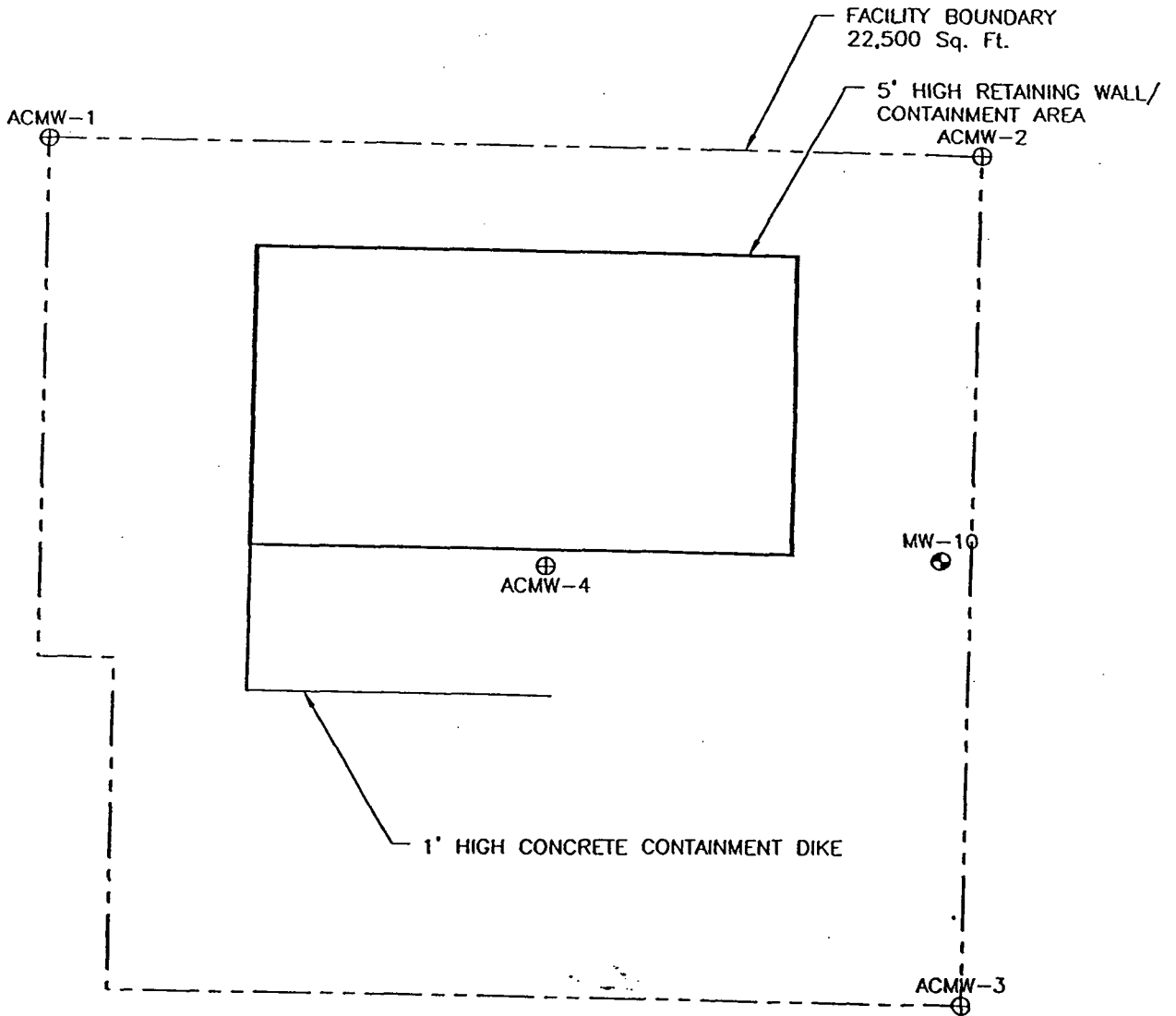
PROJECT:
20095

POST CLOSURE SAMPLING PLAN
ALL COUNTY ENVIRONMENTAL FACILITY
1 RIVER ROAD
EDGEWATER, NEW JERSEY

FIGURE:

MW-34

MW-35

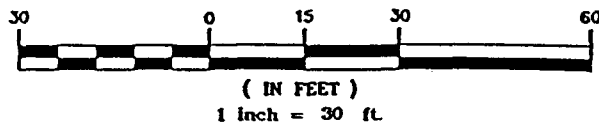


LEGEND

⊕ MONITORING WELL LOCATION

⊕ PROPOSED MONITORING WELL LOCATION

GRAPHIC SCALE



DETAIL AREA

SITE PLAN SHOWING DETAIL AREA

Environmental Waste Management Associates, LLC
P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400



SCALE: 1" = 30'	PROJECT: 20095:
DATE: 3/14/00	
DRAWN BY: DLW	
CHECKED BY: CK	

PROPOSED WELL LOCATIONS
ALL COUNTY ENVIRONMENTAL FACILITY
1 RIVER ROAD
EDGEWATER, NEW JERSEY

FIGURE,
6



**Environmental Waste
Management Associates**

Corporate Headquarters:
100 Misty Lane
P.O. Box 5430
Parsippany, NJ 07054
phone (973) 560-1400
fax (973) 560-0400
website - www.ewma.com

Sent Via Federal Express

October 13, 2000

Mr. Robert Hayton, Case Manager
New Jersey Department of Environmental Protection
Bureau of Federal Case Management
401 East State Street
CN 028, Fifth Floor
Trenton NJ 08625-0028

Re: All County Environmental Services Corp.
RCRA Closure Activities Progress Report
EPA ID# NJD00129063
EWMA Project No. 200957

Dear Mr. Hayton:

This progress report documents closure activities that were initiated during the last week of August 2000 in accordance with the August 2000 RCRA Closure Plan for All County Environmental Services Corp. In addition, this document proposes revisions to certain aspects of the Closure Plan based on conditions observed to this point in the process.

Twenty-three test pits were excavated to investigate for evidence of hazardous waste contamination from the referenced facility. Test pit logs from each location are included as **Attachment 1**. In addition to soil samples collected from these test pits, three concrete chip samples, one sample of standing rainwater, and one sample of fill material piled inside the containment walls were collected and tested for priority pollutants plus a forward library search of 40 volatile/semivolatile organic compounds (PP+40). A sample location map is included as **Figure 1**.

Based on analytical testing already completed, the standing water, the concrete containment pad, and the fill piled inside the containment area have not been impacted/contaminated by a discharge of hazardous waste. In addition, data from subsurface soil samples collected to date indicates that the contamination can be attributed to background conditions or other historical activities on-site. However, one area with stained gravel/soil and product floating on the water table was noted during the investigation (test pit AC-10). This location was immediately adjacent to the former location of two transfer pumps that were used to fill the former ASTs. Due to the presence of free product, remedial action was taken to remove stained/saturated soils. Since the need for a removal action was obvious, the only initial characterization soil sample taken from this test pit was collected below the obvious contamination (below the water table) to characterize subsurface material that did not appear to be impacted. Lab data from sample AC-10 confirmed that there was only minimal (if any) impact from this discharge to the soil below the water table.

Following its discovery, the floating product was absorbed using oil-sorbing pads and on October 10th the product contaminated soil was excavated. In order to remove the impacted soils the concrete apron/pad alongside the west wall of the containment unit was removed. The apron was a 6-inch thick floating concrete slab. The main structure, which has a 5-foot high wall on all four sides, is supported by footings that run along the entire length of each wall.

The contaminated material is currently staged awaiting off-site disposal. Post excavation soil samples were collected (0-6" above the water table) from each sidewall of the excavation. Results from the post remediation samples should be received around October 25th. Based on the depth of the footings for the concrete pad foundation, which extends into the water table, it was acting as a vertical barrier that prevented this contamination from migrating under the containment unit. This finding is supported by the fact that sample AC-10 was collected at 2.5'-3' below grade, which exactly corresponds to the depth of the base of the concrete pad beneath the main containment unit. During the remedial excavation process the top of the water table was approximately 2.5' below grade at this location.

Attempts to begin breaking up the concrete pad as part of the closure process revealed that it is reinforced throughout with heavy gauge steel bars. Due to the presence of reinforcing steel bars, its demolition and removal would involve crushing the concrete into small enough pieces to facilitate manual separation of the steel and the concrete. Since the concrete containment unit itself was not contaminated by a discharge of hazardous waste from the ASTs (based on samples ACC-1 to ACC-3), there is no reason to remove this concrete itself from the ground. Leaving the remaining concrete in place will also eliminate the need to send workers into this area to manually separate the concrete and steel debris.

Since the balance of the concrete should not need to be removed, EWMA is proposing to modify the rest of the soil sampling plan proposed in August 2000 RCRA Closure Plan. Specifically, EWMA proposes to collect samples (at a frequency of one per 900 square feet) beneath the concrete containment unit while most of it remains intact. Punching holes through the concrete pad will facilitate collecting these samples. These samples will be labeled AC-24 to AC-28. The proposed locations are shown on Figure 1. The sampling locations are biased to the area adjacent to AC-10, and the location of former samples PT-4 and PT-5. The previously proposed "ACPE" series samples will be used for the excavation of contaminated soil at AC-10 (ACPE-1 to ACPE-4).

After sampling, the excavation around AC-10 was partially backfilled with gravel and a length of slotted PVC well screen was left in place to act as a checkpoint to confirm that there is no returning free product on the water table. The gravel was brought up to the original site grade level at the base of the containment unit but the area immediately surrounding this area rises another seven feet above this level. The remainder of the backfilling will be performed after the analytical results are received/forwarded and approval is issued by the NJDEP.

Please note that this area will be filled as part of the redevelopment of this site, and it will be encapsulated and made part of the Deed Notice for this property. Therefore, following the encapsulation there will be no possibility for any direct contact exposure to any of the soil contaminants present in this area. The threat/possibility of any migrating ground water contamination will be evaluated and addressed with the one existing and four planned monitoring wells. Based on historical data from the existing well (MW-10), there is no reason to suspect that

anything other than continued monitoring would be required for the ground water quality in this area.

Following is a synopsis of the sampling investigation completed to date.

Soil samples AC-1, AC-4, AC-5 and AC-6 were collected to screen for contamination from spills that may have occurred during the decontamination process. The test pit locations and samples collected from them were biased to the location where Baker tanks were staged during the tank cleaning process. Please note that the plastic debris that was left behind following the 1998 decontamination and waste removal work coordinated by Enviro-Sciences, Inc. has been addressed. Specifically, the debris (identified by NJDEP) was collected and taken to an appropriate disposal facility under manifest.

Soil samples (AC-2, AC-3 and AC-7 to AC-23) were collected at or below the depth that would have been the surface of this property when All County was in operation in order to determine if contamination from releases during the operation is present. Due to filling in and around this area after All County ceased operating, current elevations are up to seven feet higher than what would have been the surface of this property when All County was in operation. However, in some areas there has been no filling at all. Therefore, field judgements were made in order to determine the appropriate sampling intervals.

Three concrete chips (ACC-1 to ACC-3), one sample of standing rainwater (ACSW-1), and one sample of fill piled (AC-Fill) inside the concrete containment unit were also tested for PP+40.

Analytical testing revealed the following:

- Volatile organic compounds (VOCs) were detected in 10 of the 23 soil samples collected to date. VOCs did not exceed any of the applicable NJDEP soil cleanup criteria, and only petroleum hydrocarbon compounds were detected. Sample AC-15 contained the highest total VOC concentration with a 511 ppm of tentatively identified compounds (fuel hydrocarbons in the C9 to C11 range), but no targeted compounds. AC-16 contained 15.5 ppm total xylenes, which is the only targeted VOC that exceeded the 10 ppm limit used by the NJDEP to determine if further investigation is warranted. VOCs were not detected in the fill sample (AC-Fill) and only one compound, toluene, was detected in the rainwater (ACSW-1). The toluene concentration if ACSW-1 was 0.593 ppb, which is well below the 1,000 ppb ground water quality standard for Class II-A Aquifers.
- Semivolatile organic compounds (SVOCs) were detected in all 23 soil samples and AC-Fill. SVOCs were not detected in ACSW-1. Sample AC-15 contained 2,182 ppm, which is the highest total concentration of SVOCs, and sample AC-4 contained the highest concentration of Benzo(a)pyrene at 21.5 ppm. SVOC concentrations in many of these samples exceed the generic NJDEP soil cleanup criteria. However, none of these samples contained contamination levels that should be considered hot spots within the context of this site.
- PCBs were detected in two samples, AC-19 (0.241 ppm) and AC-Fill (0.219 ppm) at levels below the most stringent NJDEP soil cleanup criteria. PCBs were not detected in AC-Fill or ACSW-1.

**All County Environmental Services Corp.
RCRA Closure Activities Progress Report
EPA ID# NJD00129063
EWMA Project No. 200957**

Page 4

- Pesticides were detected in seven of the soil samples at levels below the most stringent NJDEP soil cleanup criteria. Pesticides were not detected in AC-Fill or ACSW-1.
- Priority pollutant metals were detected in all of the soil samples with various metals exceeding the generic NJDEP soil cleanup criteria. However, none of these samples contained contamination levels that should be considered hot spots within the context of this site. Several metals were detected in ACSW-1.

Laboratory analytical results from these samples are summarized in Table 1. Due to their size, the laboratory reports are being submitted separately. However, the electronic data deliverables disc is included.

Comparison of the soil quality data from this investigation and data from the residual hazardous waste that was present in All County's above ground storage tanks does not reveal any direct correlation. Therefore, aside from a small amount of free product that was observed near the transfer pumps there is no evidence that any discharges of hazardous waste occurred while the All County facility was operating. The soil contamination that has been detected in this area is consistent with post combustion fuel hydrocarbons (such as those associated with historic fill material) and some very low-level VOCs that could be associated with No. 2 heating oil. This is not unexpected since the site was filled historically, and the above ground storage tanks operated by All County were converted No. 2 heating oil storage tanks.

Please note that Edgewater Enterprises is eager to complete the closure of this facility and fill this area in preparation for their upcoming construction project. In addition, due to conditions in this area, the installation of four additional monitoring wells and the initiation of the ground water sampling/monitoring program cannot begin until this area is leveled and graded.

If you have any questions or need additional information please contact me at our Parsippany, New Jersey office (Ext. 150).

Sincerely,
Environmental Waste Management Associates, LLC

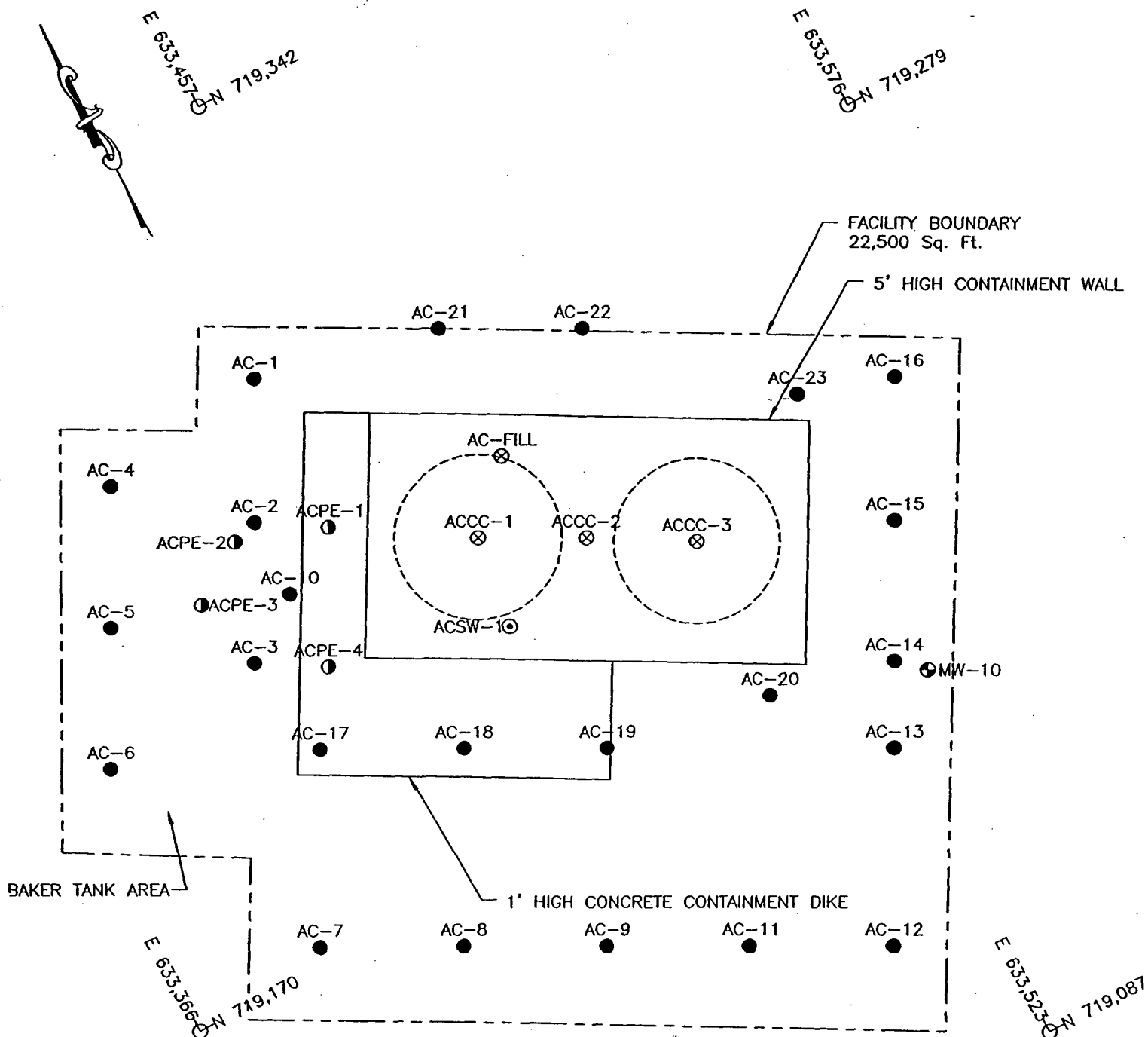
Christopher Kirby for:

Christopher Kirby, Senior Project Manager

Encl. Sample Location Plan Figure 1
Analytical Data Summary Table 1
Test Pit Logs Attachment 1
Electronic data disc

C: Scott Heller, Edgewater Enterprises

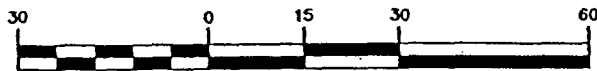
EWMA



LEGEND

- ⊕ MONITORING WELL LOCATION
- SOIL SAMPLE LOCATION
- ⊗ CONCRETE CHIP SAMPLE LOCATION
- ⊙ SURFACE WATER SAMPLE LOCATION
- ⦿ POST EXCAVATION SAMPLE LOCATION

GRAPHIC SCALE



NOTE: GRID IS N.J.S.P.C.S. 1983

1 inch = 30 ft.

DETAIL AREA

SITE PLAN SHOWING DETAIL AREA

Environmental Waste Management Associates, LLC P.O. Box 5430 Parsippany, NJ 07054 Tel: (973) 560-1400	SCALE: 1" = 30'	PROJECT# 200957
	DATE: 10/13/00	
DRAWN BY: DLW/RR CHECKED BY: CK	FIGURE# 1	

SAMPLE LOCATION PLAN
FORMER CELOTEX INDUSTRIES
1 RIVER ROAD
EDGEWATER, NEW JERSEY

ALL COUNTY SOIL SUMMARY TABLE 1
Client: Environmental Waste Management Associates, LLC.
Project: EDGEWATER - 200957

Client ID: Sample Depth: Lab ID: Date Sampled: Matrix:	AC-1 2.0-2.5 5268-001 8/24/00 Soil	AC-1 2.5-3.0 5268-002 8/24/00 Soil	AC-3 2.0-2.5 5268-003 8/24/00 Soil	AC-4 2.0-2.5 5268-004 8/24/00 Soil	AC-5 2.0-2.5 5268-005 8/24/00 Soil	AC-6 2.5-3.0 5268-006 8/24/00 Soil	AC-7 8.5-9.0 5268-007 8/24/00 Soil	AC-8 4.5-5.0 5268-008 8/24/00 Soil	AC-9 4.5-5.0 5268-009 8/24/00 Soil	AC-10 3.0-3.5 5268-010 8/24/00 Soil	AC-11 10.5-11.0 5268-011 8/25/00 Soil	AC-12 4.0-4.5 5268-012 8/25/00 Soil	AC-13 7.5-8.0 5268-013 8/25/00 Soil	AC-14 4.5-5.0 5268-014 8/25/00 Soil	AC-15 3.5-4.0 5268-015 8/25/00 Soil	AC-16 4.0-4.5 5268-016 8/25/00 Soil	AC-17 5.5-6.0 5441-001 8/31/00 Soil	AC-18 2.0-2.5 5441-002 8/31/00 Soil	AC-19 2.0-2.5 5441-003 8/31/00 Soil
Volatiles (ppm)	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.307	ND	ND	ND
Toluene	1000	1000	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19.2	ND	ND	ND
Ethylbenzene	1000	1000	100	ND	ND	ND	ND	ND	ND	ND	0.543	ND	ND	ND	ND	6.05	ND	ND	0.192
Total Xylenes	410	1000	10	ND	ND	ND	ND	ND	ND	ND	0.349	ND	ND	ND	ND	15.5	ND	ND	0.510
TOTAL VO's:	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	0.892	ND	ND	ND	ND	41.1	ND	ND	0.702
TOTAL TIC's:	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	23.0	ND	ND	8.52	21.6	511	125	ND	4.01
TOTAL VO's & TIC's:	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	23.0	0.892	ND	8.52	21.6	511	166	ND	4.71
Semivolatiles - BNA (ppm)																			
Naphthalene	230	4200	100	ND	ND	ND	1.34	ND	ND	ND	0.233	ND	ND	ND	ND	0.6	0.9	0.0761	ND
2-Methylnaphthalene	-	-	-	ND	ND	ND	0.47	ND	ND	ND	0.48	ND	ND	ND	ND	2.08	3.71	ND	ND
Acenaphthylene	-	-	-	ND	0.226	0.162	0.422	0.167	ND	0.134	ND	ND	0.401	0.714	ND	1.57	1.94	ND	ND
Acenaphthene	3400	10000	100	ND	ND	ND	3.45	ND	ND	0.29	ND	0.335	ND	0.568	0.178	6.13	3.21	0.28	ND
Dibenzofuran	-	-	-	ND	ND	ND	1.26	ND	ND	ND	ND	ND	ND	0.304	ND	ND	1.59	0.084	ND
Fluorene	2300	10000	100	ND	ND	ND	2.82	ND	ND	0.236	ND	0.318	ND	0.722	0.262	9.2	3.4	0.185	ND
Phenanthrene	-	-	-	0.531	0.307	1.12	27.6	1.01	0.356	4.77	1.51	0.913	0.256	0.436	8.76	18.6	9.41	2.77	ND
Anthracene	10000	10000	100	ND	0.122	0.358	6.13	0.291	ND	1.39	0.341	0.558	0.2	ND	0.188	2.39	ND	2.72	6.43
Carbazole	-	-	-	ND	ND	ND	4.36	ND	ND	0.339	0.267	0.185	ND	ND	0.688	ND	ND	0.514	ND
Di-n-butylphthalate	5700	10000	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.606	ND	1.90
Fluoranthene	2300	10000	100	1.13	0.874	2.450	35.900	2.110	0.765	10.300	4.460	7.110	0.913	0.795	1.320	14.900	0.581	5.810	6.170
Pyrene	1700	10000	100	0.976	1.04	2.270	39.000	1.980	0.763	7.690	3.740	5.990	1.000	0.677	1.290	12.900	0.652	8.170	22.400
Butylbenzylphthalate	1100	10000	100	ND	1.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.692	ND	ND
3,3'-Dichlorobenzidine	2	6	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benz[a]anthracene	0.9	4	500	0.586	0.555	1.340	21.200	1.250	0.491	4.340	2.420	1.130	0.449	0.410	1.140	6.720	0.362	1.250	13.100
Chrysene	9	40	500	0.649	0.622	1.060	14.600	1.170	0.540	3.780	2.990	4.180	0.555	0.575	1.240	6.040	0.382	2.900	9.500
bis(2-Ethylhexyl)phthalat	49	210	100	ND	ND	ND	ND	ND	0.256	0.149	0.167	ND	ND	ND	ND	ND	ND	5.620	0.136
Benz[b]fluoranthene	0.9	4	50	0.757	0.665	1.380	12.800	1.140	0.673	4.270	3.460	3.480	0.792	0.631	2.330	8.950	0.438	2.260	11.9
Benz[k]fluoranthene	0.9	4	500	0.285	0.280	0.616	12.200	0.587	0.286	2.200	1.670	1.370	0.361	0.286	0.882	3.140	0.214	1.180	4.320
Benz[a]pyrene	0.66	0.66	100	0.547	0.564	1.180	21.300	1.090	0.608	3.480	2.720	2.510	0.683	0.432	1.610	8.420	0.357	2.780	10.000
Indeno[1,2,3-cd]pyrene	0.9	4	500	0.186	0.188	0.356	6.040	0.754	0.342	1.970	1.790	1.340	0.350	0.259	1.180	3.510	0.162	1.130	3.01
Dibenz[a,h]anthracene	0.66	0.66	100	ND	ND	ND	2.220	0.246	ND	0.643	0.540	0.553	ND	ND	0.393	1.050	ND	1.050	8.793
Benz[ghi]perylene	-	-	-	0.177	0.187	0.346	5.890	0.911	0.411	2.120	1.930	1.440	0.423	0.276	1.220	4.520	0.167	1.420	2.82
TOTAL BNA'S:	NA	NA	NA	5.82	7.01	12.600	237.000	12.700	5.490	48.000	28.100	35.800	7.950	4.600	13.600	84.400	3.910	69.200	141.000
TOTAL TIC's:	NA	NA	NA	3.15	3.48	16.300	66.800	1.370	1.230	4.700	3.410	6.790	17.800	ND	1.200	13.600	18.600	2113.000	300
TOTAL BNA'S & TIC's:	NA	NA	NA	8.97	10.5	16.300	304.000	14.1	6.720	52.700	31.500	42.600	25.8	4.600	14.900	98.000	22.500	2182.000	441.000
PCB's (ppm)																			
Aroclor-1254	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pesticides (ppm)																			
4,4'-DDE	2	9	50	0.00524	0.00549	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	2	9	500	0.0158	0.0159	0.009	0.0126	0.00812	ND	0.00732	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (ppm)																			
Antimony	14	340	-	ND	ND	ND	ND	ND	ND	2.64	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	10	20	-	3.2	4.68	4.15	11.8	4.84	3.86	9.83	28.2	35.6	17.4	23.3	97.9	117	17.7	18.8	135
Beryllium	1	1	-	0.469	0.541	0.509	0.554	0.435	0.443	0.494	0.233	0.272	0.535	ND	0.234	0.287	0.479	0.262	0.475
Cadmium	1	100	-	0.263	0.298	0.232	0.81	0.415	0.255	0.686	2.91	2.42	2.92	0.476	0.523	14.1	0.624	ND	1.1
Chromium	-	-	-	126	121	102	60.3	64.4	51.6	56.6	45.6	14.1	21.0	12	22.8	11.8	13.3	11.4	187
Copper	600	600	-	67.6	71	63.1	106	52.1	43.6	69.1	464	434	178	53	172	1320	102	150	221
Lead	400	600	-	63.8	65.2	62.3	158	68.3	90	167	2100	2938	473	107	645	5191	251	1160	1140
Mercury	14	270	-	0.0909	0.11	0.0837	1.12	0.113	0.137	1.24	69.9	0.687	0.651	0.388	3.92	2.61	0.249	0.371	3.07
Nickel	250	2400	-	42.9	43.1	39.8	28.6	31.5	24.8	26.1	16	9.87	18.4	11	15.3	10.7	12.2	10.3	23.3
Selenium	63	3100	-	ND	ND	ND	ND	ND	ND	ND	7.38	ND	ND	ND	5.43	ND	ND	ND	3.05
Silver	110	4100	-	ND	ND	ND	1.65	ND	ND	ND	5.69	2.67	ND	ND	0.702	4.4	0.877	ND	1.29
Thallium	3	2	-	ND	0.0977	0.0954	0.165	0.0897	0.102	0.14	1.84	1.19	0.292	0.147	0.732	ND	0.223	1.05	0.71
Zinc	1500	1500	-	83.9	94.3	90.3	177	105	101	147	249	1360	607	272	147	6240	299	71.8	260
General Analytical																			
Cyanide, Total (ppm)	1100	21000	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.51	ND	ND	ND	ND	ND
Phenol (ppm)	-	-	-	ND	ND	ND	0.571	ND	ND	ND	0.543	0.567	0.868	0.681	0.557	0.576	ND	1.18	1.27

-- = No established Criteria
ND = Analyzed for but Not Detected at the MDL
NA = Not Analyzed
Bold = Concentration exceeds Criteria
Bold Italic = Concentration exceeds at least two Criteria
RDCSCC = Residential direct contact soil cleanup criteria
NRDCSCC = Non-residential direct contact soil cleanup criteria
IGWSCC = Impact to ground water soil cleanup criteria



**Environmental Waste
Management Associates**

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Parsippany, NJ 07054
phone (973) 560-1400
fax (973) 560-0400
website - www.ewma.com

Sent Via Federal Express

December 21, 2000

Mr. Robert Hayton, Case Manager
New Jersey Department of Environmental Protection
Bureau of Federal Case Management
401 East State Street
CN 028, Fifth Floor
Trenton NJ 08625-0028

FILE COPY

Volume 1 of 2

Re: RCRA Closure Activities Progress Report #2
All County Environmental Services Corp.
EPA ID# NJD00129063
EWMA Project No. 201799

Dear Mr. Hayton:

This RCRA Closure Activities Progress Report documents closure activities completed for the (former) All County Environmental Services Corp. (All County) facility area at the (former) Celotex Industrial Park in Edgewater, NJ (the "Property"). The report specifically covers activities that have taken place since the prior RCRA activities progress report, submitted October 13, 2000. Based on the information provided below, it is requested that no further action be required for soil contamination in the subject area, and for NJDEP approval for the pending development to proceed at this area of the Property. Consequently, the only remaining issues to be addressed should be the arsenic area at the southwest corner of the Property, and groundwater issues which may be addressed subsequent to the development.

A Site Plan showing the All County facility area is attached as Figure 1. Our investigation of the facility's perimeter area (outside of containment unit) was addressed in the October 13 progress report. Sampling data indicated that the only contamination encountered within the perimeter area was stained soils and petroleum product at the water table observed at the AC-10 test pit. The area surrounding AC-10 was subsequently excavated, and post-excavation samples were collected from each sidewall of the excavation (samples ACPE-1 through ACPE-4). The results from these samples exhibit no contamination exceeding the background levels typical of the lower horizon of fill at the site. Only sample ACPE-3

produced results exceeding soil cleanup criteria, specifically for benzo[a]anthracene (1.45 ppm), benzo[b]fluoranthene (1.63) ppm and benzo[a]pyrene (1.24 ppm). These results are consistent with the average values detected in historic fill material, as indicated in Table 4-2 of the NJDEP *Technical Requirements for Site Remediation* (Tech Regs). The analytical results for these post-excavation samples are summarized in the attached Table 1. The sample locations are shown on the attached Figure 2, which includes the locations of all samples collected for the RCRA closure activities.

The temporary sump that was set in the gravel backfill to monitor for possible product was checked periodically, and has shown no sign of free-phase product. Approximately 140 cubic yards of contaminated material was excavated and stockpiled for off-site disposal. The soil stockpile has been relocated on-site awaiting transport and disposal at an appropriate facility, based on waste classification results.

On November 13, 2000, EWMA personnel utilized a 4-inch diameter electric coring device to cut through the concrete basin in order to collect the necessary soil samples from directly beneath the slab. Due to some difficulties in advancing the core through the thick concrete slab, only three (AC-25 through AC-27) of the planned five samples (AC-24 through AC-28) were collected on November 13th. These samples were subjected to priority pollutants +40 (PP+40) analysis. During sampling, a black oily substance was visible beneath the concrete slab in soil sample AC-27, the discovery of which indicated the need for excavation of soils by breaking up and removal of the concrete slab. Collection of the remaining two samples was postponed until after remedial excavation of the impacted soil was performed.

On November 22, a backhoe with a pneumatic hammer attachment was mobilized to break through the concrete slab to allow visual delineation and excavation of impacted soils. A majority of the eastern half of the containment basin slab was penetrated and broken apart. The broken concrete was peeled off and staged on plastic next to the concrete basin.

Once exposed, soil was excavated where the staining was visible. Soil free of staining was encountered at approximately 4 feet below the concrete slab, likely representing a seasonal low groundwater level, and along the sides of the concrete basin. Some seepage of groundwater into the excavation was observed at points along the excavation perimeter. The remedial excavation extended horizontally generally five to ten feet beyond the limits of the former tank footprint. The extent of the excavation is shown on Figure 2. Approximately 320 cubic yards of material was removed from the excavation, and all of the stained soils were stockpiled on plastic next to the excavation. This material was later relocated to another

portion of the Property with the AC-10 remedial excavation soils, awaiting classification for proper off-site disposal.

Following the removal of the contaminated soil, four sidewall samples (A through D) were collected and analyzed for PP+40. The results for sample D will also represent the initially proposed sample AC-28, since the location and tested parameters of post-excavation sample D are equivalent to the proposed sample AC-28. The analytical results for samples A through D do not exceed NJDEP soil cleanup standards. Results for these samples have been summarized in Table 3. The sample locations are shown on the attached Figure 2.

Once received, the analytical results for samples AC-25 through AC-27 indicated only sample AC-27 contained contaminants above soil cleanup criteria, specifically for arsenic (57.3 ppm), lead (4390 ppm), mercury (27.1 ppm), and selenium (598 ppm). These results for metals are above the typical values detected in the lower (historic) fill horizon present at the site. The analytical results for samples AC-25 through AC-27 are summarized in Table 2. Sample locations are shown on the attached Figure 2.

On December 8th, 2000 a soil sample (AC-24) was taken beneath the concrete slab through one of the remaining 'punch' holes using a core sampling device to complete the sub-slab sampling distribution as per the Closure Plan. Sample AC-24 was also analyzed for full PP+40. The results indicate levels of semivolatile organics and metals consistent with the typical values detected in the lower (historic) fill horizon present at the site. The results for this sample are also summarized in Table 2. The lab deliverables for this sample are pending, along with the electronic deliverables disk, and will be forwarded as an addendum as soon as received. Lab deliverables for all other samples reported herein are provided in the Appendix (hardcopy and electronic formats).

Waste classification samples of the remedial excavation soils (AC-10 and AC-27 area excavations) were collected on November 30, the results of which are summarized in Table 4. The soils excavated from the RCRA facility area presently stockpiled at the site will be transported in the near future for disposal offsite, pending facility approval.

The subject area will be filled to raise surface grade and a pavement composed of paver blocks constructed as part of the redevelopment of this site. The pavement will constitute a surface cap under requirements of a Deed Notice planned for the Property, eliminating the potential for direct contact exposure to any remaining soil contaminants in the area. The potential of impact to groundwater related to soil contamination remediated by the closure activities will be evaluated with the one existing and four planned monitoring wells. Based on the historical monitoring data from the existing well (MW-10), and its location relative to

Mr. Robert Hayton
RCRA Closure Activities Progress Report #2
December 21, 2000

Page 4

the soil contamination encountered, it appears unlikely that anything other than a monitored natural attenuation approach would be necessary for the groundwater in this area.

Please note that Edgewater Enterprises is eager to complete the closure of this facility and fill this area in preparation for their upcoming construction project. In addition, due to construction work planned in this area, installation of the four additional monitoring wells and initiation of the groundwater sampling/monitoring program will not begin until after this area is leveled and graded, and preferably after the foundation and slab-on-grade construction work. This is based on concerns that monitoring wells often become damaged or are lost due to construction operations, even with precautions taken to protect the wells.

If you have any questions or need additional information please contact me at our Parsippany, New Jersey office (Ext. 155).

Sincerely,
Environmental Waste Management Associates, LLC



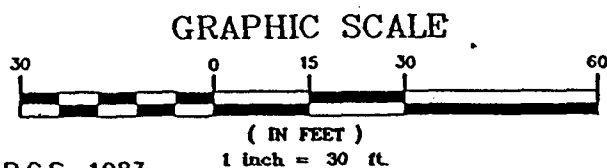
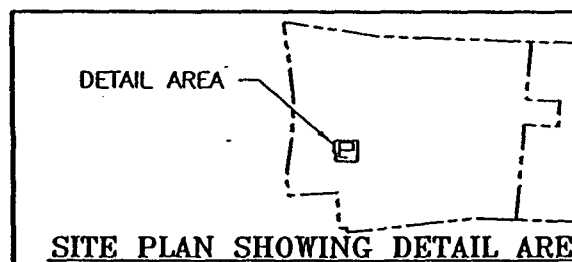
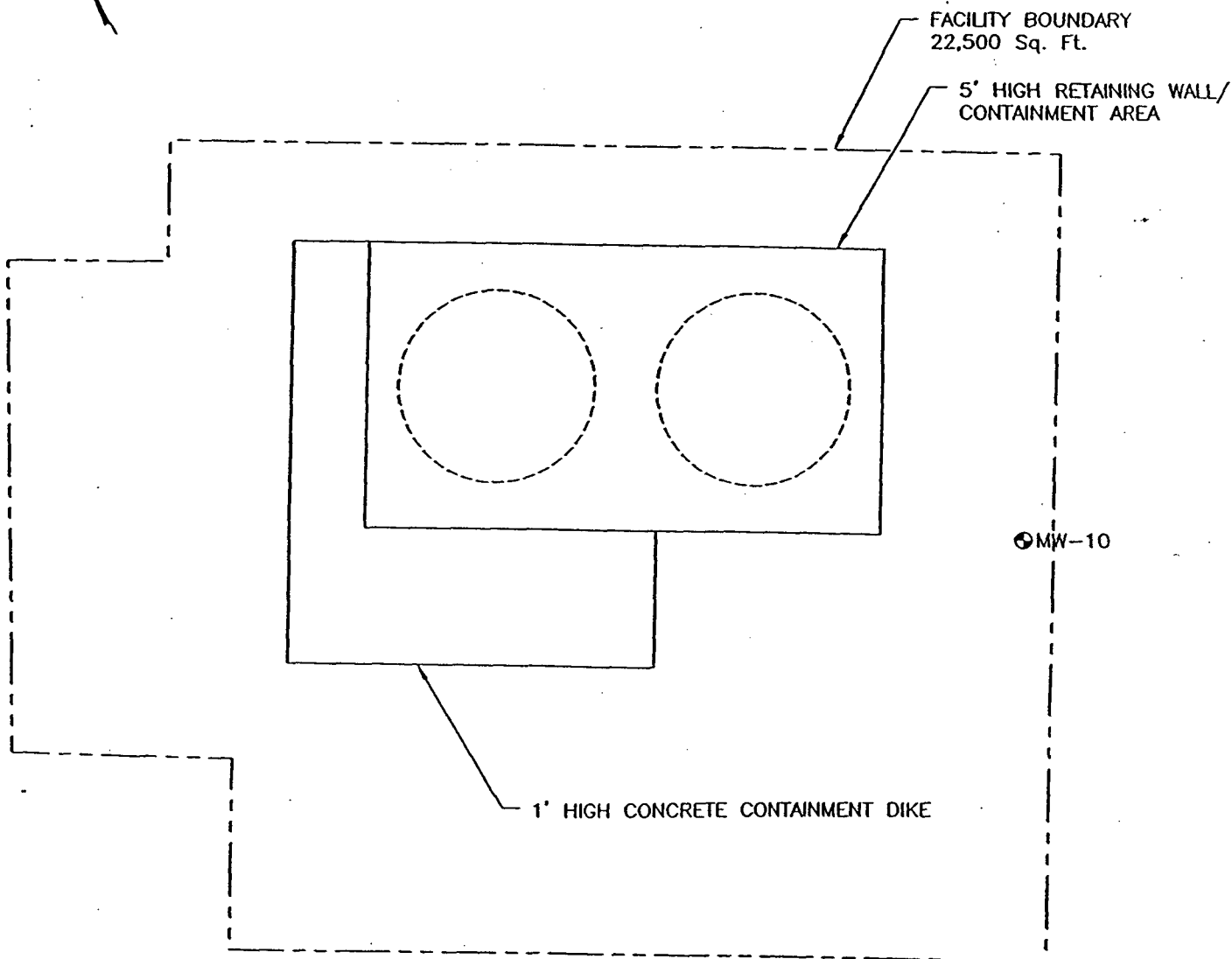
Burton Turner, PE, PG
Senior Project Engineer

Encl. Site Plan - Figure 1
Sample Location Plan - Figure 2
Analytical Data Summary Tables - Tables 1 through 4


Cc: Scott Heller, Edgewater Enterprises (w/o lab QA/QC sections)

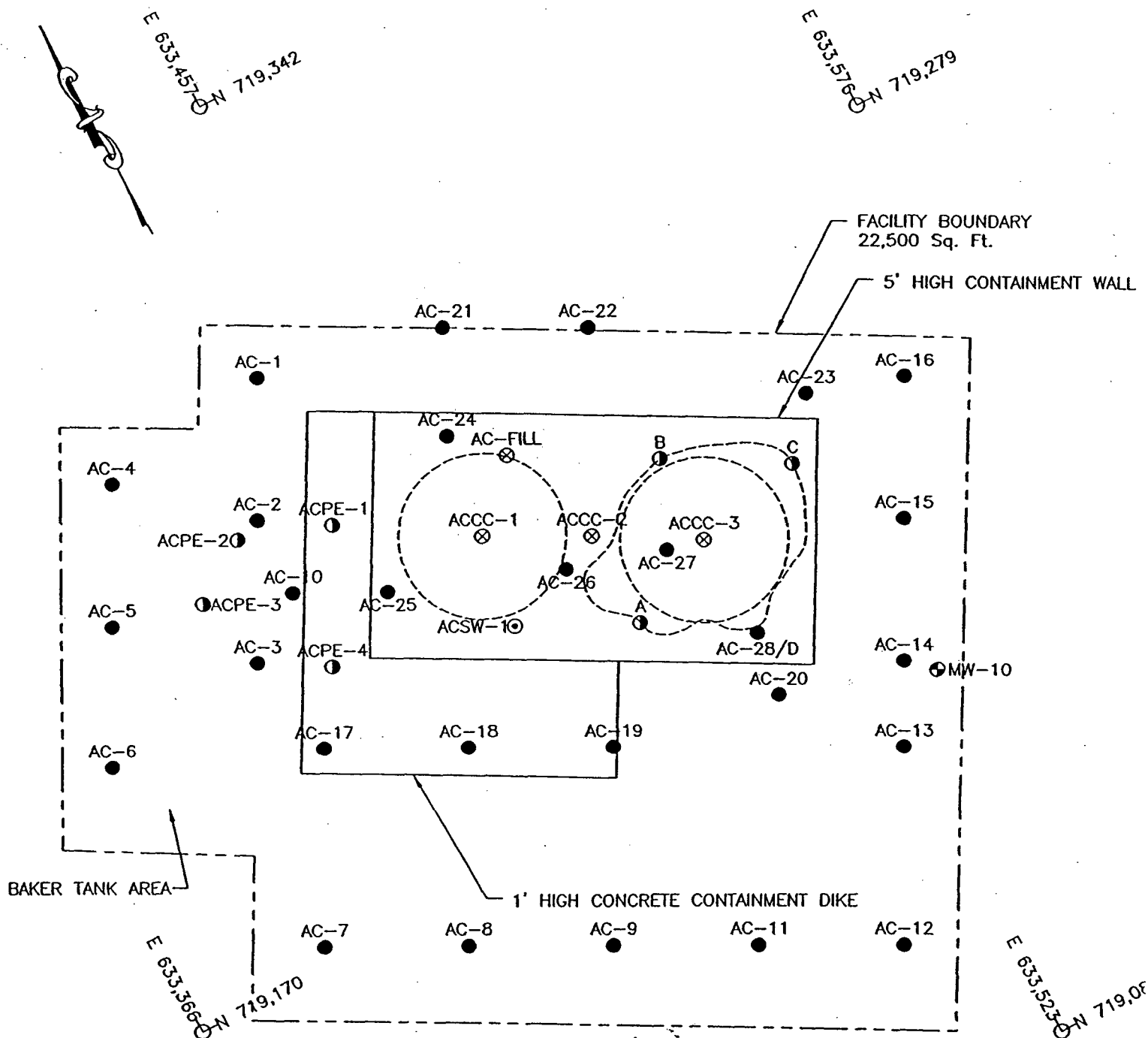
RCRA progress rep2 12-00.doc

FIGURES



NOTE: GRID IS N.J.S.P.C.S. 1983

Environmental Waste Management Associates, LLC P.O. Box 5430 Parsippany, NJ 07054 Tel: (973) 560-1400 	SCALE: 1" = 30'	PROJEC
	DATE: 12/15/00	2007
	DRAWN BY: DLW/RR	
	CHECKED BY: CK	
SITE PLAN FORMER CELOTEX INDUSTRIES 1 RIVER ROAD EDGEWATER, NEW JERSEY		FIGUR 1



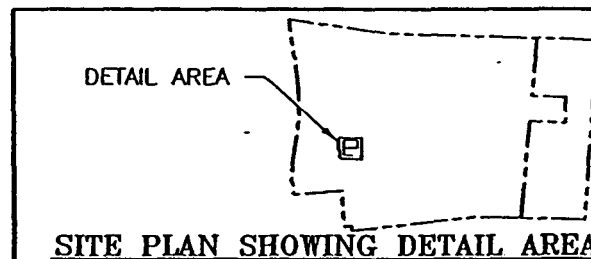
LEGEND

- ⊙ MONITORING WELL LOCATION
- SOIL SAMPLE LOCATION
- ⊗ CONCRETE CHIP SAMPLE LOCATION
- ⊙ SURFACE WATER SAMPLE LOCATION
- ⊙ POST EXCAVATION SAMPLE LOCATION

GRAPHIC SCALE



NOTE: GRID IS N.J.S.P.C.S. 1983



Environmental Waste Management Associates, LLC

P.O. Box 5430
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Tel: (973) 560-1400



SCALE: 1" = 30'

DATE: 12/18/00

DRAWN BY: DLW/RR
CHECKED BY: CK

PROJEC
20175

SAMPLE LOCATION PLAN
FORMER CELOTEX INDUSTRIES
1 RIVER ROAD
EDGEWATER, NEW JERSEY

FIGURE

2

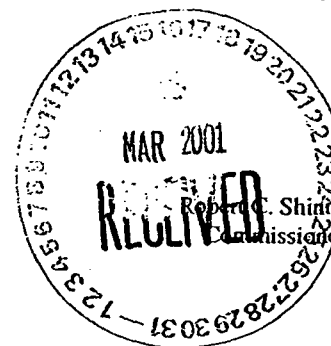
200957



State of New Jersey

Department of Environmental Protection

DONALD T. DiFRANCESCO
Acting Governor



CERTIFIED MAIL
RETURN RECEIPT REQUESTED

MAR 15 2001

Mr. Scott Heller, Executive Vice President March 14, 2001
Edgewater Enterprises LLC
525 River Road
Edgewater, New Jersey 07020

Re: Celotex Industrial Park, Edgewater, Bergen County

Remedial Investigation Report, September 2000
Gypsum Landfill issues, October 2000
RCRA Closure Reports #1 and #2, October 2000, December 2000
Remedial Investigation Work Plan, October 2000

Dear Mr. Heller:

The New Jersey Department of Environmental Protection (Department) has reviewed the above referenced reports and have the following comments:

RI Report

Ground Water

1. The tidal study was not performed due to equipment problems. It will be performed during the next phase of the RI. This is acceptable.
2. A well search for the area, which was submitted for the Lustrelon property, also applies to Celotex. There are a number of monitoring wells in the area, but no domestic, industrial or public supply wells. The Department reviewed the well search as part of the ISRA program and it is acceptable.
3. A ground water contour map with 12/21/99 ground water sampling results is presented. The results show that further vertical and horizontal delineation of the contamination is necessary. Please see our comments
4. The ground water comments listed in the NJDEP's 1/12/00 letter need to be addressed.

Soils

1. Page 15 Section 2.4.5.1 - No further soil removal is necessary in the C-45, C-46, C-47, C-48 and C-50 areas, however as historically stated by the Department, clean zone samples shall be established to the west in order to properly record a deed notice.
2. Page 16 Section 2.4.5.2 - The C-98 area has been excavated and no other soil remediation is necessary at this location.
3. Page 16 Section 2.4.5.3 - The C-4 area is completed and no further analyses are necessary for arsenic. The C-79 area however still has very high arsenic and lead contamination that is associated with the adjacent Quanta Resources Superfund Site. Further delineation or removal of contamination shall also be coordinated with USEPA. Pursuant to paragraph 61 of the 1999 ACO between the Department and Edgewater Enterprises LLC, if your consultant EWMA acquired any additional delineation samples, please submit the data to the Department and USEPA.
4. Page 16 Section 2.4.5.4 - Additional details pertaining to the removal of the soil in this area are necessary. The original location C-77 exhibited PAH and metals contamination from depths ranging between surface and 16 ft below grade. It must be verified that the sample representing a vertical clean zone was collected below the 16.0-foot depth originally referenced as being contaminated. Additionally due to the levels of metals contamination detected within the post-ex samples, additional As and Pb delineation is necessary west of this location.
5. Vertical Delineation - Additional delineation sampling to complete vertical delineation was conducted in a few of the excavated areas. The Department agreed that a vertical clean zone would not be required to be established at every single sample location, however the clean zone depths that will eventually be utilized will need to be clearly outlined for the Department to review.
6. Page 17 Section 2.4.6, Hot-Spot (Delineation) Areas of Concern - C-74, C-75 and C-77 - It appears that lateral clean zones have been established to the west of these contaminated locations. However, metals contamination above criteria is now known to be present within the post-ex samples from area C-77. Sample CC2-24 to the west of C-77 was not analyzed for metals. As stated above additional lateral delineation to the west in the vicinity of CC2-24 is required for Arsenic and lead.
7. Page 18 Section 2.4.6.2 - Please see comment #3 above.
8. Page 19 Section 2.4.6.3 - Delineation to the south and west of these locations was considered appropriate, provided all of the contaminants were taken into consideration and investigated. Only PAH analysis was completed at these boring locations. The Department noted that VOCs and metals required investigation. The Department also previously stated that C-32 and 34 were considered hot spots due to the levels of PAHs detected. Vertical delineation was also required. It is agreed that this area is included in the newly listed Quanta Superfund site and will be investigated under the auspices of USEPA.
9. Page 19 Section 2.4.6.4 - As stated above in comment # 8 this area is included in the newly listed Quanta Superfund site and will be investigated under the auspices of USEPA.

10. Page 19 Section 2.4.6.5 - No additional investigation of this area is necessary. Location C-63 is addressed as part of AOC-13.
11. Page 20 Section 2.4.6.6 - No additional sampling specific to these locations is necessary. The levels of CaPAHs remaining are consistent with the concentrations observed on the remainder of the site.
12. Page 21 Section 2.4.7.1 - No additional actions are required to address Sales Area Stockpile soil, however the approximate location of where the soil was graded shall be depicted on a site map and the concentrations must be included in the deed notice.
13. Page 21 Section 2.4.7.2 - No additional actions are required to address the "Continuing Care Soil" stockpile. The contaminant concentrations remaining shall be included in the site wide remedial strategy.
14. Page 22 Section 2.4.7.3 - No additional actions are necessary at this time with regard to the four covered piles near MW 36.
15. Page 22 Section 2.4.7.3 - As stated in the past, the use of over burden soils from hot spot excavations does not appear to be a concern since PAH contamination is found throughout the site.
16. Page 23 Section 2.4.8 - The proposal to include this area in the site wide remedial strategy is still acceptable.
17. Page 23 Section 2.4.9 - The proposal for no additional action is acceptable.
18. Page 23 Section 2.4.10 - This is acceptable
19. Page 23 Section 2.4.11 - No additional offsite delineation is necessary at this time. The existing data is sufficient to allow the determination of an appropriate remedial strategy.

Gypsum Landfill

1. Additional samples were collected as required, however the sample locations and depths still fail to satisfy all the Department's concerns as outlined within the 8/18/99 letter. Specifically, comment #2 - PCB delineation was required in the vicinity of samples LFTP-4 and LFB-3. Both samples exhibited PCB concentrations at depths of 13-13.5 ft and 25-26 ft. None of the delineation samples address lateral delineation at these depths nor do they address vertical delineation below these depths at these two locations. This discrepancy shall be addressed immediately. Also the more recent surface samples reported elevated PCBs at location LFSS-4. It is not clear where a PCB clean zone has been established surficially to the west of LFSS-4. This shall also be addressed immediately.

The requirement to complete delineation of arsenic and lead has not been addressed. Samples LFSS-1 to 7 were collected 0-2 ft. These samples do not help define the limits of these two metals, which were detected at depths of 25-26 feet during the first round of characterization sampling. Arsenic and lead shall be delineated.

2. With regard to a proposed cap of 18 inches, it is likely that this cap would be sufficient for protecting human health provided it's thickness is maintained throughout the existence of this area. It should be noted that the majority of riverwalk was constructed without the proper cap beneath. Most of the paver blocks are resting on 6 inches or less of dense-graded aggregate and 2" of leveling sand. In fact during my site visits on 16 March and 4 April 2000 I observed the paver blocks directly on the gypsum waste. This is unacceptable. The walkway is part of the engineering control within the deed notice required for the site. Edgewater Enterprises LLC shall demonstrate to the Department the thickness of the current cover of the gypsum landfill by conducting soil corings to a depth of twenty-four (24) inches with a grid spacing of 25 feet. This information shall be submitted to the Department in the form of a report. The exact location of the river walk in relation to the landfill soil and clay cap and all contaminant concentrations and depths shall also be included in this report. All information shall be presented on a detailed/scaled site map. The Department will then determine whether the river walk cap and the soil cap complies with the above stated capping strategy. Additional information regarding the western boundary of the landfill and the impact the proposed development will have on it shall be also discussed in the report. If the western area of the landfill will need a different type of cap then this shall be proposed.

In addition to the above please note that, during my above referenced site visits and my 10 April 2000 follow-up letter to you, Edgewater Enterprises LLC was required to also place the appropriate cover along any slopes where there is exposed waste material. This included the slopes that come into contact with the Hudson River where there are currently boulders or rip rap. This area shall comply with the above stated capping remedy

3. Edgewater Enterprises LLC was required to establish the western boundary of the landfill area. A series of test pits (LFTP-13 to 18) were excavated August 2000 to determine the limits of the gypsum fill material. The depth of the material ranged between 6" and 8.0 feet. In areas where gypsum fill is less than 12" – it is proposed that the gypsum material be excavated and placed within the main landfill area. This will reduce that area designated as fill within the deed notice. The boundary will be surveyed and marked with permanent survey markers. This proposal is acceptable to the Department.
4. The Department required that the excess waste pile stored on top of the western section of the landfill be disposed offsite. Edgewater states that the waste pile has been removed from the site and that disposal documentation will be provided to NJDEP as soon as it is received. Edgewater Enterprises LLC shall submit the disposal documentation within 15 days of receiving this letter.
5. As a result of the reshaping of the landfill area, excess material extends into the proposed retail development area of the site. Gypsum fill is present up to 8.0 feet thick within this region. A concrete slab construction is proposed in this area. No building structures will be directly on grade. Retail structures are planned on the elevated deck above the fill area. This proposal shall be included in the report describe in comment 2 above.

RCRA Area

1. To date NJDEP has not received disposal documentation for the stockpiled soils removed from areas AC-10 and AC-27. It is noted that approximately 140 cubic yards of contaminated material was awaiting offsite transport and disposal. Edgewater Enterprises LLC shall submit the disposal documentation within 15 days of receiving this letter.

2. Documentation as to the origin of the backfill material must also be supplied for NJDEP review. This shall be submitted to the Department within 15 days of receipt of this letter.
3. It appears that only sidewall samples were collected at both areas of excavation. Vertical clean zones were not documented at either area. It was noted that minimal impact from a discharge was observed to soil beneath the water table at AC-10. This minimal impact must be confirmed with laboratory data, as is the case with the area beneath the concrete slab at AC-27. This area shall be sampled.
4. As required for every other AOC on the former Celotex property lateral clean zone boundaries for all contaminants must be depicted on a scaled site map. The contaminants within this AOC must be shown in relation to the contamination site wide.
5. Before the cap in this area can be approved the contaminated sample depths and locations must be documented in reference to the area to be covered with paver blocks. As stated for other areas across the site a minimum of 18 inches of clean material shall be present beneath the paver blocks.
6. It is agreed that the levels of CaPAHs and metals present within this area are consistent with the remainder of the site. High arsenic and lead levels associated with a reddish/purple discoloration are evident across the southern portion of the Celotex property and have been noted in this area as well.
7. This area must be included within the site-wide deed notice. A long-term engineering control monitoring and maintenance program must be detailed and provided for NJDEP review.

RI Work Plan

1. All County Environmental Services - The Department had previously required that ground water monitoring wells be installed. This report states that one well exists in the area and that four wells will be installed so that there is a total of five wells (one upgradient and four downgradient) monitoring the unit. The five water table wells will be sampled for PP+40.

This proposal is conditionally acceptable as long as a map is submitted which shows the location of the former tank farm, the existing well and the four proposed wells. The figure in this report only shows the well locations and does not show the location of former tank farm.
2. Southern Portion of the Site Ground Water Contamination - This area of the site has coal tar type contaminants from the Quanta Resources site to the south. Celotex proposes to sample 8 wells in the southern portion of the site for total and dissolved arsenic and VO+10 including naphthalene.

Prior to approval of this proposal Edgewater Enterprises LLC shall address the Department's 12 January 2000 letter the NJDEP discusses the issue of vertical delineation to the Ground Water Quality Standards in the vicinity of MW-2 and MW-7. This delineation needs to take place by installing a deeper monitoring well and sampling it for total and dissolved arsenic, VOC+10 including naphthalene.

3. Ground Water Contamination at C-79 – C-79 was a soil boring with high arsenic and lead. A well (MW-6A) was completed at this location. The contamination was found to be more wide spread. Celotex proposes to sample six wells in the area for total and dissolved arsenic, VOC+10 including naphthalene.

This strategy is acceptable. The high arsenic levels in MW-4A, MW-6A and MW-22 need to be vertically delineated to the Ground Water Quality Standards using deep monitoring wells.

4. Celotex proposes to install new wells called MW-37 and MW-38 near the Quanta Resources site to determine the ground water flow direction in that area to see if the high arsenic is migrating on-site from the Quanta Resource property. This is acceptable.
5. A 28-day tidal study will be conducted in wells MW-6A, MW-4, MW-3 and MW-19. Water levels will be collected at the beginning and end of the study from all site wells. The tidal study shall also include the deep wells. Ground water contour maps should be prepared for each site wide ground water elevation sampling event.
6. Celotex states that wells MW-5, MW-13A and MW-14A will not be sampled because contamination migrating north to south has not been a problem. MW -11 and MW-12 will be sampled for total and dissolved arsenic as part of the site wide investigation.

This strategy is acceptable but shall be augmented. MW-12 and MW-13A had levels of 1,2 dichloroethane over 500 ppb. These two wells need to be sampled for VOC +10 and metals. Also, MW-11 was not sampled during the most recent sampling round because it could not be found. MW-11 shall be sampled for VOC +10 and metals. The contamination shall be horizontally and vertically delineated to the Ground Water Quality Standards

7. Celotex proposes to use low flow sampling procedures for arsenic. A flow through cell needs to be used to collect indicator parameters. The proposal states that the wells will be purged at a rate of 1 liter per minute. The recommended purging rate for low flow sampling is 200-500 ml/minute. Also, the flow rate for sampling is not specified. The recommended flow rate for sampling is between 100 and 250 ml/minute. The low flow sampling procedure shall be revised to reflect these items.
8. It is assumed that normal sampling and purging procedures will be used for the VOC sampling. Therefore, the use of a peristaltic pump is acceptable for the low flow sampling for arsenic.

Additional Comments

Also please be advised that, as discussed in our 2/22/01 meeting, Edgewater Enterprises will submit to the Department the following items:

1. A piling plan schematic for the entire site that includes all piling locations, the phases and schedules in which they are planned to be put in place.
2. The above plan shall include the surveyed extent of the gypsum landfill.
3. Three additional deep (immediately above bedrock) wells shall be incorporated into the ground water RI. One deep well shall be located just east of the RCRA containment area;

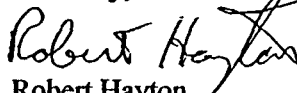
another shall be located between monitoring well 4 and 6 and the last well will be located near MW 20.

4. Ground water elevations taken on 2 February 2001 for all wells shall be provided to the Department.
5. Edgewater Enterprises LLC shall respond to the Departments 12 January 2000 letter within 15 calendar days of receipt of this letter. This outstanding response has placed Edgewater Enterprises LLC in non-compliance with the April 1999 ACO between the Department and Edgewater Enterprises LLC and subject to penalties pursuant to paragraph 46 of the ACO.
6. In addition to the above items, I am enclosing a letter that was received by the Department from USEPA concerning the construction at the Celotex Site. Please note that this letter requests information concerning the development of the Celotex Site. Pursuant to paragraph 11 of the above referenced ACO, Edgewater Enterprises shall provide the requested information to the USEPA with a copy sent to the Department. This shall include any utilities and/or conveyances that will need to be placed below grade.
7. Please be advised that the Department still has not received the Quarterly report requested in December or the yearly financial report. Edgewater Enterprises LLC shall submit said reports within 15 calendar days of receipt of this letter. These outstanding submittals have placed Edgewater Enterprises LLC in non-compliance with the above referenced ACO and subject to penalties pursuant to paragraph 46 of the ACO.

Edgewater Enterprises shall respond to this letter within 30 calendar days of its receipt unless otherwise specified. Failure to do so will be a violation of paragraph 28 of the April 1999 ACO between the Department and Edgewater Enterprises LLC

If you have any questions please call me at (609) 633-0744.

Sincerely,



Robert Hayton
Case Manager
Bureau of Case Management

- c. Dennis Toft, Wolfe and Sampson
Burt Turner, EWMA
Anne Pavelka, NJDEP
Chris Lacy, NJDEP
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By facsimile (609-633-1439) and FedEx

April 27, 2001

Mr. Robert Hayton
NJDEP-Bureau of Federal Case Management
P. O. Box 028
401 East State Street
Trenton NJ 08625-0028

Re: Former Celotex Industrial Park Property
River Road, Edgewater, Bergen County
EWMA Project #200957

Subject: Response to Comments
NJDEP Comment Letter dated March 15, 2001

Dear Mr. Hayton:

Provided below are responses to the comments in your March 15, 2001 letter regarding the following submitted documents:

Remedial Investigation Report, September 2000
Gypsum Landfill Issues, October 2000
RCRA Closure Reports #1 and #2, October 2000, December 2000
Remedial Investigation Workplan, October 2000

For reference, the NJDEP's comments from the March 15, 2001 letter are shown in bold type, with each followed by a response to the comment. Per our discussions and email, the due date for this response to NJDEP comments was extended to April 27, 2001.

RI Report

Ground Water:

- 1. The tidal study was not performed due to equipment problems. It will be performed during the next phase of the RI. This is acceptable.**

Response: The tidal study data was collected between November 30, 2000 and January 5, 2001. The Tidal Study Report has been prepared and is being submitted to the NJDEP along with this letter as Attachment A.

- 2. A well search for the area, which was submitted for the Lustrelon property, also applies to Celotex. There are a number of monitoring wells in the area, but no domestic, industrial or public supply wells. The Department reviewed the well search as part of the ISRA program and it is acceptable.**

Response: This comment indicates NJDEP acceptance and/or approval of previously submitted information and no response is necessary.

3. *A ground water contour map with 12/21/99 ground water sampling results is presented. The results show that further vertical and horizontal delineation of the contamination is necessary. Please see our comments.*

Response: This comment is responded to after the appropriate comments below.

4. *The ground water comments listed in the NJDEP's 1/12/00 letter need to be addressed.*

Response: Responses to those comments are included in a response letter to the January 12, 2000 letter, being submitted concurrent with this letter.

Soils:

1. *Page 15 Section 2.4.5.1 - No further soil removal is necessary in the C-45, C-46, C-47, C-48 and C-50 areas, however as historically stated by the Department, clean zone samples shall be established to the west in order to properly record a deed notice.*

Response: Post-excavation samples in these areas indicated remaining contaminant concentrations are within limits to be addressed by the planned site-wide deed notice, allowing such levels to be capped. Therefore, the need for additional sampling for a clean zone is questioned for these areas.

2. *Page 16 Section 2.4.5.2 - The C-98 area has been excavated and no other soil remediation is necessary at this location.*

Response: This comment indicates NJDEP acceptance and/or approval of previously submitted information and no response is necessary.

3. *Page 16 Section 2.4.5.3 - The C-4 area is completed and no further analyses are necessary for arsenic. The C-79 area however still has very high arsenic and lead contamination that is associated with the adjacent Quanta Resources Superfund Site. Further delineation or removal of contamination shall also be coordinated with USEPA. Pursuant to paragraph 61 of the 1999 ACO between the Department and Edgewater Enterprises LLC, if your consultant EWMA acquired any additional delineation samples, please submit the data to the Department and USEPA.*

Response: EWMA is currently completing a Remedial Investigation / Remedial Action Workplan specifically for the area of high arsenic contamination around C-79.

4. *Page 16 Section 2.4.5.4 - Additional details pertaining to the removal of the soil in this area are necessary. The original location C-77 exhibited PAH and metals contamination from depths ranging between surface and 16 ft below grade. It must be verified that the sample representing a*

vertical clean zone was collected below the 16.0-foot depth originally referenced as being contaminated. Additionally due to the levels of metals contamination detected within the post-ex samples, additional As and Pb delineation is necessary west of this location.

Response: The post excavation sample taken from the C-77 removal action was collected at 11.5 to 12.0 feet below surface grade. This sample is PEC77-5. The required As and PB delineation will be covered in the RIW currently being prepared.

5. *Vertical Delineation - Additional delineation sampling to complete vertical delineation was conducted in a few of the excavated areas. The Department agreed that a vertical clean zone would not be required to be established at every single sample location, however the clean zone depths that will eventually be utilized will need to be clearly outlined for the Department to review.*

Response: An updated site map depicting the established "clean" zones will be included in an upcoming progress report for the site, as necessary for the planned site wide deed notice.

6. *Page 17 Section 2.4.6, Hot-Spot (Delineation) Areas of Concern - C-74, C-75 and C-77 - It appears that lateral clean zones have been established to the west of these contaminated locations. However, metals contamination above criteria is now known to be present within the post-ex samples from area C-77. Sample CC2-24 to the west of C-77 was not analyzed for metals. As stated above additional lateral delineation to the west in the vicinity of CC2-24 is required for Arsenic and lead.*

Response: As indicated in the response to Soils comment #1 above, the site-wide deed notice will address the detected levels of metals contamination encountered in the post-excavation samples for these areas.

7. *Page 18 Section 2.4.6.2 - Please see comment #3 above.*

Response: See the response to comment #3.

8. *Page 19 Section 2.4.6.3 - Delineation to the south and west of these locations was considered appropriate, provided all of the contaminants were taken into consideration and investigated. Only PAH analysis was completed at these boring locations. The Department noted that VOCs and metals required investigation. The Department also previously stated that C-32 and 34 were considered hot spots due to the levels of PAHs detected. Vertical delineation was also required. It is agreed that this area is included in the newly listed Quanta Superfund site and will be investigated under the auspices of USEPA.*

Response: This comment indicates NJDEP acceptance and/or approval of previously submitted information and no response is necessary. Edgewater Enterprises will cooperate fully with the USEPA regarding any activities required by the USEPA for the Quanta Superfund Site.

9. *Page 19 Section 2.4.6.4 - As stated above in comment # 8 this area is included in the newly listed Quanta Superfund site and will be investigated under the auspices of USEPA.*

Response: This comment is noted; see response to comment #8.

10. *Page 19 Section 2.4.6.5 - No additional investigation of this area is necessary. Location C-63 is addressed as part of AOC-13.*

Response: This comment indicates NJDEP acceptance and/or approval of previously submitted information and no response is necessary.

11. *Page 20 Section 2.4.6.6 - No additional sampling specific to these locations is necessary. The levels of CaPAHs remaining are consistent with the concentrations observed on the remainder of the site.*

Response: This comment indicates NJDEP acceptance and/or approval of previously submitted information and no response is necessary.

12. *Page 21 Section 2.4.7.1 - No additional actions are required to address Sales Area Stockpile soil, however the approximate location of where the soil was graded shall be depicted on a site map and the concentrations must be included in the deed notice.*

Response: An updated site map is included with this letter as Attachment B, showing the sample locations and the approximate area the stockpile was graded to. The analytical data has been submitted to the NJDEP as part of the September 2000 RIR and all pertinent contaminant concentrations will be appropriately noted within the deed notice.

13. *Page 21 Section 2.4.7.2 - No additional actions are required to address the "Continuing Care Soil" stockpile. The contaminant concentrations remaining shall be included in the site wide remedial strategy.*

Response: This comment indicates NJDEP acceptance and/or approval of previously submitted information and no response is necessary.

14. *Page 22 Section 2.4.7.3 - No additional actions are necessary at this time with regard to the four covered piles near MW 36.*

Response: This comment indicates NJDEP acceptance and/or approval of previously submitted information and no response is necessary.

15. *Page 22 Section 2.4.7.3 - As stated in the past, the use of over burden soils from hot spot excavations does not appear to be a concern since PAH contamination is found throughout the site.*

Response: This comment indicates NJDEP acceptance and/or approval of previously submitted information and no response is necessary.

16. Page 23 Section 2.4.8 - The proposal to include this area in the site wide remedial strategy is still acceptable.

Response: This comment indicates NJDEP acceptance and/or approval of previously submitted information and no response is necessary.

17. Page 23 Section 2.4.9 - The proposal for no additional action is acceptable.

Response: This comment indicates NJDEP acceptance and/or approval of previously submitted information and no response is necessary.

18. Page 23 Section 2.4.10 - This is acceptable

Response: This comment indicates NJDEP acceptance and/or approval of previously submitted information and no response is necessary.

19. Page 23 Section 2.4.11 - No additional offsite delineation is necessary at this time. The existing data is sufficient to allow the determination of an appropriate remedial strategy.

Response: This comment indicates NJDEP acceptance and/or approval of previously submitted information and no response is necessary.

Gypsum Landfill

1. Additional samples were collected as required, however the sample locations and depths still fail to satisfy all the Department's concerns as outlined within the 8/18/99 letter. Specifically, comment #2 - PCB delineation was required in the vicinity of samples LFTP-4 and LFB-3. Both samples exhibited PCB concentrations at depths of 13-13.5 ft and 25-26 ft. None of the delineation samples address lateral delineation at these depths nor do they address vertical delineation below these depths at these two locations. This discrepancy shall be addressed immediately. Also the more recent surface samples reported elevated PCBs at location LFSS-4. It is not clear where a PCB clean zone has been established surficially to the west of LFSS-4. This shall also be addressed immediately.

The requirement to complete delineation of arsenic and lead has not been addressed. Samples LFSS-1 to 7 were collected 0-2 ft. These samples do not help define the limits of these two metals, which were detected at depths of 25-26 feet during the first round of characterization sampling. Arsenic and lead shall be delineated.

Response: The required sampling for this item will be covered in an upcoming Gypsum Landfill

Workplan. It shall list target depths and proposed analysis for borings to address the PCB delineation west of LFSS-4 and those borings required to complete the delineation of the Arsenic and Lead.

2. *With regard to a proposed cap of 18 inches, it is likely that this cap would be sufficient for protecting human health provided it's thickness is maintained throughout the existence of this area. It should be noted that the majority of riverwalk was constructed without the proper cap beneath. Most of the paver blocks are resting on 6 inches or less of dense-graded aggregate and 2" of leveling sand. In fact during my site visits on 16 March and 4 April 2000I observed the paver blocks directly on the gypsum waste. This is unacceptable. The walkway is part of the engineering control within the deed notice required for the site. Edgewater Enterprises LLC shall demonstrate to the Department the thickness of the current cover of the gypsum landfill by conducting soil corings to a depth of twenty-four (24) inches with a grid spacing of 25 feet. This information shall be submitted to the Department in the form of a report. The exact location of the river walk in relation to the landfill soil and clay cap and all contaminant concentrations and depths shall also be included in this report. All information shall be presented on a detailed/scaled site map. The Department will then determine whether the river walk cap and the soil cap complies with the above stated capping strategy. Additional information regarding the western boundary of the landfill and the impact the proposed development will have on it shall be also discussed in the report. If the western area of the landfill will need a different type of cap then this shall be proposed.*

In addition to the above please note that, during my above referenced site visits and my 10 April 2000 follow-up letter to you, Edgewater Enterprises LLC was required to also place the appropriate cover along any slopes where there is exposed waste material. This included the slopes that come into contact with the Hudson River where there are currently boulders or rip rap. This area shall comply with the above stated capping remedy.

Response: Edgewater Enterprises is currently placing topsoil as capping material on areas known to be deficient in cap material thickness. Following placement, EWMA will perform the cap depth investigation on a 25-foot grid (with the exception of a 50-foot grid to be used in the basin area, as recently discussed. A workplan (Gypsum Landfill Workplan) will then be prepared to facilitate compliance with the above items. Upon completion it will be forwarded to the NJDEP for review. This plan will include a site map depicting the boring locations, boring logs, a cap thickness isopleths map and provisions for enhancing the cap/cover in areas of deficiency and the slopes along the river.

3. *Edgewater Enterprises LLC was required to establish the western boundary of the landfill area. A series of test pits (LFTP-13 to 18) were excavated August 2000 to determine the limits of the gypsum fill material. The depth of the material ranged between 6" and 8.0 feet. In areas where gypsum fill is less than 12" - it is proposed that the gypsum material be excavated and placed within the main landfill area. This will reduce that area designated as fill within the deed notice. The boundary will be surveyed and marked with permanent survey markers. This proposal is acceptable to the Department.*

Response: Recent investigation activities onsite have delineated the permanent western border of the Gypsum Landfill material, and said boundary has been surveyed. Permanent

markers will be installed to indicate the landfill limits. Pursuant to the above comment, regulated material of less than a foot thickness will be relocated within the new boundary.

4. *The Department required that the excess waste pile stored on top of the western section of the landfill be disposed offsite. Edgewater states that the waste pile has been removed from the site and that disposal documentation will be provided to NJDEP as soon as it is received. Edgewater Enterprises LLC shall submit the disposal documentation within 15 days of receiving this letter.*

Response: Documentation for the offsite disposal of the material in question is included with this letter as Attachment C.

5. *As a result of the reshaping of the landfill area, excess material extends into the proposed retail development area of the site. Gypsum fill is present up to 8.0 feet thick within this region. A concrete slab construction is proposed in this area. No building structures will be directly on grade. Retail structures are planned on the elevated deck above the fill area. This proposal shall be included in the report describe in comment 2 above.*

Response: See the response to comment #2 above.

RCRA Area

1. *To date NJDEP has not received disposal documentation for the stockpiled soils removed from areas AC-10 and AC-27. It is noted that approximately 140 cubic yards of contaminated material was awaiting offsite transport and disposal. Edgewater Enterprises LLC shall submit the disposal documentation within 15 days of receiving this letter.*

Response: Disposal documentation for 304 tons of soil removed from the site on January 26, 2001 was submitted to the NJDEP by facsimile and regular mail on April 6, 2001.

2. *Documentation as to the origin of the backfill material must also be supplied for NJDEP review. This shall be submitted to the Department within 15 days of receipt of this letter.*

Response: Backfill utilized in this area consisted of the overburden soils on the site from areas surrounding the RCRA area, as referred to and indicated as not a concern in comment 15 of the "RI Report - Soils" section above.

3. *It appears that only sidewall samples were collected at both areas of excavation. Vertical clean zones were not documented at either area. It was noted that minimal impact from a discharge was observed to soil beneath the water table at AC-10. This minimal impact must be confirmed with laboratory data, as is the case with the area beneath the concrete slab at AC-27. This area shall be sampled.*

Response: An additional sample was collected at the AC-27 area on April 4, 2001 at depth just

below the backfill placed in the recent excavation below the concrete slab. The results of the sample analysis were provided to the DEP on April 10, 2001. The laboratory reduced-deliverables package for this sample was forwarded to the NJDEP on April 13, 2001. The results for this sample were below NJDEP soil cleanup criteria, and the NJDEP has since accepted the area for no further action in regard to soils.

No further sampling at the AC-10 area was necessary based on discussion with Chris Lacey of the NJDEP, as the original AC-10 sample was collected at depth below the contamination when it was originally encountered, and as such represents the vertical delineation sample.

4. *As required for every other AOC on the former Celotex property lateral clean zone boundaries for all contaminants must be depicted on a scaled site map. The contaminants within this AOC must be shown in relation to the contamination site wide.*

Response: The limits of each AOC as well as the RCRA area will be depicted on a scaled site map along with contaminant concentrations remaining, as required for the deed notice, under the site-wide remedial strategy.

5. *Before the cap in this area can be approved the contaminated sample depths and locations must be documented in reference to the area to be covered with paver blocks. As stated for other areas across the site a minimum of 18 inches of clean material shall be present beneath the paver blocks.*

Response: See the response to comment #2 above.

6. *It is agreed that the levels of CaPAHs and metals present within this area are consistent with the remainder of the site. High arsenic and lead levels associated with a reddish/purple discoloration are evident across the southern portion of the Celotex property and have been noted in this area as well.*

Response: This comment indicates NJDEP acceptance and/or approval of previously submitted information and no response is necessary.

7. *This area must be included within the site-wide deed notice. A long-term engineering control monitoring and maintenance program must be detailed and provided for NJDEP review.*

Response: The draft deed notice including the long-term monitoring and maintenance program will be developed and submitted to the NJDEP for review.

RI Work Plan

1. *All County Environmental Services - The Department had previously required that ground water monitoring wells be installed. This report states that one well exists in the area and that four wells*

will be installed so that there is a total of five wells (one upgradient and four downgradient) monitoring the unit. The five water table wells will be sampled for PP+40.

This proposal is conditionally acceptable as long as a map is submitted which shows the location of the former tank farm, the existing well and the four proposed wells. The figure in this report only shows the well locations and does not show the location of former tank farm.

Response: A map showing the location of the former tank farm containment area and the existing and proposed wells was included as Figure 6 in the March 2000 RCRA Closure Plan.

2. *Southern Portion of the Site Ground Water Contamination — This area of the site has coal tar type contaminants from the Quanta Resources site to the south. Celotex proposes to sample 8 wells in the southern portion of the site for total and dissolved arsenic and VO+10 including naphthalene.*
Prior to approval of this proposal Edgewater Enterprises LLC shall address the Department's 12 January 2000 letter the NJDEP discusses the issue of vertical delineation to the Ground Water Quality Standards in the vicinity of MW-2 and MW-7. This delineation needs to take place by installing a deeper monitoring well and sampling it for total and dissolved arsenic, VOC+10 including naphthalene.

Response: Responses to comments in the NJDEP's January 12, 2000 are included in our response letter being submitted concurrent with this letter. The existing monitoring well MW-31 was recently determined to be a well installed to top of weathered bedrock at the site. A new bedrock well identified as P-1 was also installed in the same area, approximately ten feet southwest of MW-31. Results of the sampling of MW-31 and two additional deep wells (DMW-1, DMW-2) recently installed at the site were provided to the NJDEP on April 10, 2001. The sampling results indicate that concentrations of dissolved arsenic and benzene exceeding Ground Water Quality Standards are present in the groundwater at the depth of the top of bedrock.

3. *Ground Water Contamination at C-79 - C-79 was a soil boring with high arsenic and lead. A well (MW-6A) was completed at this location. The contamination was found to be more wide spread. Celotex proposes to sample six wells in the area for total and dissolved arsenic, VOC+10 including naphthalene.*

This strategy is acceptable. The high arsenic levels in MW-4A, MW-6A and MW-22 need to be vertically delineated to the Ground Water Quality Standards using deep monitoring wells.

Response: MW-4 and MW-6 were abandoned, and have not yet been replaced by MW-4A and MW-6A. These wells will be installed with the next drill rig mobilization, along with the additional RCRA area wells, and MW-37 and MW-38. As stated in the response to comment #2 above, three deep wells are present at the site for vertical delineation. A site wide groundwater monitoring strategy will likely include additional deep wells, including one in the vicinity of MW-12.

4. *Celotex proposes to install new wells called MW-37 and MW-38 near the Quanta Resources site to determine the ground water flow direction in that area to see if the high arsenic is migrating*

on-site from the Quanta Resource property. This is acceptable.

Response: This comment is noted.

5. *A 28-day tidal study will be conducted in wells MW-6A, MW-4, MW-3 and MW-19. Water levels will be collected at the beginning and end of the study from all site wells. The tidal study shall also include the deep wells. Ground water contour maps should be prepared for each site wide ground water elevation sampling event.*

Response: Since MW-6A has not yet been installed and MW-4 has been removed. MW-22 and MW-10 were used along with MW-3 and MW-19 for the Tidal Study. All pertinent details of the study are included with this letter as Attachment A.

6. *Celotex states that wells MW-5, MW-13A and MW-14A will not be sampled because contamination migrating north to south has not been a problem. MW -11 and MW-12 will be sampled for total and dissolved arsenic as part of the site wide investigation.*

This strategy is acceptable but shall be augmented. MW-12 and MW-13A had levels of 1,2 dichloroethane over 500 ppb. These two wells need to be sampled for VOC +10 and metals. Also, MW-11 was not sampled during the most recent sampling round because it could not be found. MW-11 shall be sampled for VOC +10 and metals. The contamination shall be horizontally and vertically delineated to the Ground Water Quality Standards.

Response: These changes will be incorporated into the sampling plans for future groundwater monitoring events.

7. *Celotex proposes to use low flow sampling procedures for arsenic. A flow through cell needs to be used to collect indicator parameters. The proposal states that the wells will be purged at a rate of 1 liter per minute. The recommended purging rate for low flow sampling is 200-500 ml/minute. Also, the flow rate for sampling is not specified. The recommended flow rate for sampling is between 100 and 250 ml/minute. The low flow sampling procedure shall be revised to reflect these items.*

Response: This comment is noted. Low flow procedures have been used for recent groundwater sampling at the site (Feb/Mar, 2001). A low flow sampling procedure was provided to the NJDEP for review prior to the February event.

8. *It is assumed that normal sampling and purging procedures will be used for the VOC sampling. Therefore, the use of a peristaltic pump is acceptable for the low flow sampling for arsenic.*

Response: This comment is noted.

Additional Comments

1. *A piling plan schematic for the entire site that includes all piling locations, the phases and*

schedules in which they are planned to be put in place.

Response: This information has been provided to the NJDEP by Edgewater Enterprises.

2. The above plan shall include the surveyed extent of the gypsum landfill.

Response: The required plan will be provide based on the recently completed delineation survey. See responses to the Gypsum Landfill comments #2 and #3 above.

3. Three additional deep (immediately above bedrock) wells shall be incorporated into the ground water RI. One deep well shall be located just east of the RCRA containment area; another shall be located between monitoring well 4 and 6 and the last well will be located near MW 20.

Response: Two deep monitoring wells (DMW-1 and DMW-2) were installed in March 2001, the locations of which were provided on a site plan to the NJDEP. During the installation of P-1 at a location approximately ten feet from MW-31, it was determined that well MW-31 is a deep-screened well installed to the top of bedrock, and as such constitutes the third required deep well, as agreed to by the Case Manager. Logs of the new wells will be provided with the upcoming quarterly progress report.

4. Ground water elevations taken on 2 February 2001 for all wells shall be provided to the Department.

Response: The correct date of the site-wide monitoring of water levels in the wells was 22 February 2001. A physical well survey was recently conducted. The resulting ground water elevations and contour map is provided as Attachment D to this response letter.

5. Edgewater Enterprises LLC shall respond to the Departments 12 January 2000 letter within 15 calendar days of receipt of this letter. This outstanding response has placed Edgewater Enterprises LLC in non-compliance with the April 1999 ACO between the Department and Edgewater Enterprises LLC and subject to penalties pursuant to paragraph 46 of the ACO.

Response: Requests to extend the period for response to both the January 12, 2000 and March 15, 2001 letters were approved, resulting in a response due date of April 27, 2001.

6. In addition to the above items, I am enclosing a letter that was received by the Department from USEPA concerning the construction at the Celotex Site. Please note that this letter requests information concerning the development of the Celotex Site. Pursuant to paragraph 11 of the above referenced ACO, Edgewater Enterprises shall provide the requested information to the USEPA with a copy sent to the Department. This shall include any utilities and/or conveyances that will need to be placed below grade.

Response: The information requested will be provided by Edgewater Enterprises to the USEPA and the NJDEP.

Mr. Robert Hayton
NJDEP-Bureau of Federal Case Management
Response to March 15, 2001 NJDEP letter
April 27, 2001

Page 12 of 12

7. Please be advised that the Department still has not received the Quarterly report requested in December or the yearly financial report. Edgewater Enterprises LLC shall submit said reports within 15 calendar days of receipt of this letter. These outstanding submittals have placed Edgewater Enterprises LLC in non-compliance with the above referenced ACO and subject to penalties pursuant to paragraph 46 of the ACO.

Response: A Project Progress Report covering the period from March 1999 through December 2001 was submitted to the NJDEP on or about March 29, 2001. A summary of costs expended for site remediation to date was provided shortly thereafter. Subsequent progress reports will be submitted within 45 days following each calendar quarter. The quarterly report for the period of January 1 through March 31, 2001 will be submitted to the NDEP by May 15, 2001.

This response letter is being submitted concurrent with the response to the January 12, 2000 NJDEP letter.

If you have any questions or require any further information, you can reach me at (973) 560-1400, extension 155.

Respectfully,
Environmental Waste Management Associates, LLC



Burton Turner, PE, PG
Senior Project Engineer

Attachments

CC: Richard LaBarbiera, Edgewater Enterprises
Scott Heller, Edgewater Enterprises
Dennis Toft, Wolff and Samson



**Environmental Waste
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Sent via Priority Fedex

July 25, 2002

Mr. Daniel A. Nachman
Project Manager
Dan Raviv Associates, Inc.
57 East Willow Street
Millburn, NJ 07041

**Re: Former Celotex Industrial Park Property
River Road, Edgewater, Bergen County
EWMA Project #202352**

Subject: All County RCRA Closure – Groundwater Monitoring Requirements

Dear Mr. Nachman:

As per your telephone request, and in support of your incorporation of groundwater monitoring requirements for RCRA Area closure into the site-wide groundwater investigation/monitoring plan, a copy of the following documents is enclosed:

- NJDEP comment letter dated January 12, 2000 in response to EWMA's Phase II Remedial Investigation Work Plan dated August 17, 1999;
- EWMA's response letter dated April 27, 2001 to NJDEP's comment letter dated January 12, 2000;
- NJDEP's comment letter dated March 14, 2001 to various EWMA documents submitted during September 2000 through December 2000;
- EWMA's Tidal Study Report dated March 19, 2001 (without figures/attachments), included as Attachment A with EWMA's response letter dated April 27, 2001 to NJDEP comment letter dated March 14, 2001;
- Groundwater Contour Map dated February 22, 2001, included as Attachment D with EWMA's response letter dated April 27, 2001 to NJDEP comment letter dated March 14, 2001.

Mr. Daniel A. Nachman

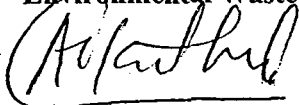
July 25, 2002

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Should you have any questions or require additional information, please do not hesitate to contact me at (973) 560-1400, ext. 155.

Sincerely,

Environmental Waste Management Associates, LLC



Ajay Kathuria, PE
Senior Project Engineer

Encl.

cc: Richard LaBarbiera, P.E., Edgewater Enterprises
Kevin Orabone, EWMA

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State of New Jersey

Christine Todd Whitman
Governor

Department of Environmental Protection

Robert C. Shinn, Jr.
Commissioner

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
P 325 002 518

Mr. Scott Heller, Executive Vice President January 12, 2000
Edgewater Enterprises LLC
525 River Road
Edgewater, New Jersey 07020

RE: Celotex Industrial Park: Phase II Remedial Investigation Work Plan
August 17, 1999

Dear Mr. Heller:

The Department of Environmental Protection has reviewed the above referenced document and has the following comments:

General Comments

1. Former 150,000 Gal. Above Ground Storage Tanks (AGSTs) AOC 15- These tanks were located within a concrete secondary containment unit. The AGSTs were dismantled and removed from the site. The concrete footprint of the containment structure remains intact. No letter of closure was issued by USEPA under TSCA. It should be noted that this Area of Concern (AOC) is the former location of All County Environmental Services Corporation which was a hazardous waste treatment storage and disposal facility that was and is regulated under the Resource Conservation and Recovery Act (RCRA). In order to fulfill the requirements of RCRA you are required to demonstrate closure of the unit pursuant to 40 CFR 264.197. A report shall be submitted to the Department documenting the closure of the unit that has taken place to date. This report shall include full documentation of all aspects of the closure pursuant to the above cited federal regulation including but not limited to:
 - Tank content analyses
 - Detailed discussion of tank content removal procedures
 - Manifests documenting ultimate disposition of hazardous waste
 - Decontamination procedures of all piping and tank structures
 - Wipe sample analyses of piping and tank structures
 - Ultimate disposition of all piping and tank structures

The data provided in Appendix 3 indicates a high correlation between it and the data from the waste sample analyses obtained by EPA on March 16, 1998. This correlation indicates a release has occurred from the regulated tanks. Pursuant to the above cited federal regulations if "not all contaminated soils can be practicably removed or decontaminated as required

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.....then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills (§264.310)." Please submit a closure plan for the remaining tank containment area and tank trailer holding area immediately south of the containment area. This closure plan shall conform to the above cited federal regulations. Ground water monitoring wells shall be placed around the secondary containment area for the AGST's in such a way to determine if the ground water has been impacted by the release. This is typically done by placing 3 monitoring wells down gradient and one upgradient of the area of concern. These wells shall be placed close to the area of concern so as to minimize possible interference from other areas of concern.

The sample depths for PT-1 to PT-5 were not noted within the Aug. 1999 report. The sample summary sheets should be revised to reflect the depth of sample collection. Delineation of all parameters of concern for this area must be established. It is noted that one sample (C2-9) is proposed in this vicinity, however it is unclear as to the purpose of this one sample.

2. Gypsum Landfill – A separate remedial investigation report was submitted for this area in June, 1999. Test pits and soils borings were completed within this area. A request for no further investigation was made within the June 1999 report. A request for no further action has been made to the NJDEP Bureau of Landfill Engineering for approval.

The Department has not received a response to our August 18, 1999 comment letter concerning the access road soil stockpile and gypsum board landfill. These comments shall be addressed as part of the response to this comment letter. The landfill closure report shall also be submitted.

Attachment 2 of the 9/1/99 EWMA letter was also reviewed. It appears that four additional borings (LFB2-1, 2-2, 2-3, and 2-4) are proposed within the landfill area. Samples, according to the attached table will be analyzed for VOCs, PCBs, and PAHs depending upon the boring. These additional locations are acceptable, however only address a few of the Departments concerns outlined in the 8/18/99 letter.

In a recent discussion with Chris Kirby of EWMA, it was requested that surplus gypsum board from the landfill be allowed to be used as fill material elsewhere on site. This material can not be used as fill material on site. The material is regulated as solid waste and shall be disposed of accordingly.

3. AOC 12 – The proposal to perform soil removal within these areas was previously approved by the Department. The proposal is still acceptable. Edgewater Enterprises should clearly document at what depth the original contamination was located in relation to the excavation boundaries and post-ex sample depth intervals. All significant contamination within these locations should be removed during this next phase.

The proposal to include the contamination at C-56 to 61 with the offsite delineation strategy is acceptable at this time, however it is premature to discuss remedial options for this area of the site. The remedial strategy for this southern portion will likely require coordination with EPA/Allied Signal. But first delineation and characterization activities must be completed.

4. AOC 13 = Academy Film – Three borings were completed (C-62, 63, 64) during the original phase of investigation to investigate the possible discharge of film process chemicals to the

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open drain system within this area. Two samples from each boring were collected at what was believed to be the depth of the former floor drains. Each sample was analyzed for PP+40. Only PAHs and As were discovered to be present at the sampled locations. The contamination was consistent with that detected across the remainder of the site, however no floor drain diagram was submitted for review as requested by the Department.

The proposal to include these locations in the site wide remedial investigation strategy was previously approved within the Department's 12/15/97 letter. This is still considered acceptable at this time. It should be noted that the highest arsenic concentrations in the Hudson River sediments have been detected adjacent to the Pier Building off shore of the former Lustrelon property. Please refer to the Geosyntec Oct. 1999 report generated for Allied Signal. The source of this arsenic is still considered to be from onsite operations. This issue is to be further investigated.

5. AOC 14 = J&T Leasing - Three borings (C-65, 66, 67) were completed outside J&T Leasing, immediately north of building 1. Samples were collected from surface soils (0-4 ft) below grade from the area where a surface oil spill was noted. The samples were collected prior to the placement of additional fill material within this vicinity. Concentrations of TPH were above 10,000 at location C-65 (15,000 ppm). Elevated PAH levels were also noted to be present at 6 of 7 sampling locations.

Sample location C-65 has since been removed. This location was excavated during the Parcel A project. Contamination, however, does still remain above criteria at these locations.

No proposal was specifically noted for this area; however it is presumed that the remaining contamination will be addressed along with the site wide delineation strategy. This is acceptable. Eventually figures depicting clean zone boundaries for all depth intervals will need to be submitted to the Department for review.

6. AOC 16 = Havana Potato and Transport Co. - Historically one sample (C-68/C-16) was collected from an area of heavy staining adjacent to a diesel AGST southwest of building 1. The results reported TPH and PAHs below criteria, however the location of the sample was questioned by NJDEP.

The location of the sample has been clarified as outside the original building footprint from within the area of staining. The building had been demolished prior to sampling. Figure 3 of the original RI report indicating that the sample was collected below former Building 1 was incorrect. It is presumed that no additional actions specific to this sample location are proposed. This is acceptable at this time.

7. Hot Spot Areas of Concern - Based on the Department's review of specific criteria such as land use, toxicity, and contaminant concentrations (i.e. As and CaPAHs), it had been determined that potential hot spots exist that would significantly increase the short-term threat to health, safety and the environment. Therefore the Department required source removal at specific locations on the Edgewater Enterprises property, prior to implementation of a non-permanent remedial action (e.g. capping with institutional controls).

The 12/15/97 NJDEP letter outlined the specific locations to be addressed - PAHs = C-45, 46, 47, 50, 98; Arsenic = C-4, C-79, C-89, and C-90. Based on additional reviews and

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discussions held between previous land owner, Edgewater Associates and the Department representatives, additional locations were added, including C-48. Please note that additional locations are also being considered hot spots, however removal actions were not yet required. Some of these locations will be investigated by delineation boring locations. These locations include C-32, 34, 35, C49, 51, 52, C-56 to 61, C-57, and C-77. Some of these locations were already addressed during the implementation of other activities related to the pending development of the site.

- A. C-45, 46, 47, 48 and 50 -- The PAH contamination at these locations will be addressed by excavation and removal. Two separate excavations will be performed (C-45, 46, 47) and (C-48 and 50). Each excavation will address the contamination at specific depths. Soil will be removed from a 10x10-ft area extending approximately 4.0 ft vertically at the interval in question. Five post-ex samples from each hot spot will be collected (4 sidewall / 1 base). The samples will be analyzed for PAHs. All soil removed will be disposed at a certified facility. The excavated areas will be backfilled with soil that meets the New Jersey Residential Soil Standards.

A proposal to address these two areas was previously commented on within the Department's 2/24/99 correspondence. The reuse of any soil above the zone of removal was not recommended. This soil has not been sampled/characterized and may not be "reused" without sampling. All soil shall be disposed offsite and the entire excavated area be backfilled with certified clean fill.

During excavation activities all contaminated intervals shall be removed. The following intervals shall be considered for removal. C-45 (5.5-6 ft, 8.5-9 ft); C-46 (6.5-7 ft); C-47 (8.5-9 ft); C-48 (7-7.5 ft, 8-8.5 ft), C-50 (8.5-9.0 ft). The post-ex samples shall take these depths into consideration.

- B. C-98 -- This boring is located to the southwest of the Gypsum Landfill. Elevated PAHs were detected within this area at a depth of 7.5-8.0 ft. As stated above removal of the soil in this area was required.

It is unclear in this work plan as to how this area will be addressed. Edgewater Enterprises states that this area still requires removal however does not specifically state that it will be included in the upcoming removal action. Figure 8 also does not depict this area being excavated. It appears that additional delineation samples will be collected surrounding this location. This area needs to be further addressed in the revision to this work plan.

- C. C-89 and 90 -- These areas were identified for the removal of soils contaminated with high levels of arsenic. During the Parcel A project the soil at these two locations was excavated. This removal was approved by the Department within the 2/11/99 letter.
- D. C-4 and C-79 -- These two areas were previously determined to be hot spots for arsenic. The Department requested the removal of this contamination within the 12/15/97 letter. Edgewater Enterprises acknowledges that

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removal is necessary at both locations, however has not proposed excavation. It is also noted that these locations are not included on Figure 8.

Edgewater Enterprises shall include in the revised RI work plan a detailed discussion on how these areas will be excavated. Removal is still considered necessary. According to the report it appears that only delineation sampling is proposed

8. Site Wide Fill Delineation - In addition to onsite areas, offsite areas also require both horizontal and vertical delineation to determine the extent of the contamination.

- A. C-74, 75, 76, and 77 - Four borings are to be advanced (C2-24 to 2-27) to the west of each of these historical boring locations. Samples are proposed to be collected at 7.5-8.0 ft and analyzed for PAHs.

The proposal to pursue delineation to the west of these boring locations is an acceptable strategy. However, delineation must be completed for all contaminants elevated above their respective most stringent criteria. PAHs are not the only contaminants of concern at these former boring locations. For example Pb and As are present at C-77. Also, all contaminated intervals must be delineated. Whether or not the 7.5-8.0 ft proposed sampling interval would address the former 0-6" interval as well as the 12.5-13 ft and 15.5-16 ft interval at C-77 is unlikely. This shall be clarified, with greater sampling proposal details provided as well as a proposal for additional sampling depths. Vertical delineation shall also be completed.

A revised proposal shall be developed that reflects the above noted concerns.

- B. C-79 and 80 - Three borings are to be advanced to the south and west of these two historical locations. Samples are proposed to be collected at 7.5-8 ft for PAH and As analysis. In addition four samples will be collected in the vicinity of C-79. These samples will be collected at 5-5.5 ft, 7-7.5 ft, 4.5-5 ft, and 7.5-8 ft. These additional samples will address the concerns with the other contaminants present, including Cu, Pb, and Tl.

As stated for the area above, the proposal to pursue delineation in the vicinity of these boring locations is an acceptable strategy. However, delineation shall be completed for all contaminants elevated above their respective most stringent criteria. PAHs are not the only contaminants of concern at these former boring locations. In addition to PAHs and As, Pb, Sb, Hg, Cu, and Se are also known to be elevated in this vicinity. Not all of these contaminants are addressed by the above proposal. Delineation is especially important near the adjacent property boundaries. Vertical delineation is also necessary and does not appear to be addressed by the proposed borings outlined in Table 2.

A revised proposal shall be developed that reflects the above noted concerns.

- C. C-32, 34, and 35 - The report specifically documents that proposed delineation samples would address this area. These borings are not included

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in Table 2, however it appears that the samples noted for MW-1 and MW-21 are also being used for delineation of C-32, 34, and 35. Two samples are proposed (C2-19 and 2-20) at 7.5-8.0 ft. Both samples will be analyzed for PAHs.

This proposal does not adequately address the contamination detected in C-32, 34, and 35. Locations C-32 and 34 are considered hot spots due to the levels of PAHs previously detected. Contamination was previously detected at 5.5-6 ft, 7-7.5 ft, and 7.5-8 ft. It should be noted that only PAHs were analyzed, a complete priority pollutant metals scan and VOC analysis was not completed at these locations. Samples to the south and west of these locations are acceptable, however must take all concerns into consideration. Ground water in this area is contaminated with VOCs, As, and Naphthalenes. Soils shall also be analyzed for these parameters in addition to PAHs. Vertical delineation is also necessary in the immediate vicinity of these locations.

A revised proposal shall be developed that reflects the above noted concerns.

- D. C-97 and 98 – According to figure 8 historical location C-98 will be delineated by three sampling locations (C2-13, 2-14, and 2-15). Samples will be collected from 7.5-8 ft at all three locations. Each sample will be analyzed for PAHs.

The proposal to delineate this location is acceptable, however this area is also noted to be a hot spot and in need of removal. It is unclear as to why samples are being collected at this point in time. It would appear beneficial to remove the area of contamination first and collect post-ex samples for all contaminants of concern. PAHs are not the only contaminants of concern at this location. Arsenic and lead levels were also found to be elevated at the 7.5- 8.0-ft interval within C-98 and shall be addressed.

Location C-97 is noted as requiring delineation, however no proposal is noted within this report. Elevated PAHs are present at this location, which is adjacent to the shoreline along the southern portion of the site. As contamination likely extends to the water, it does not appear beneficial to collect samples surrounding this location at this time, as they are likely to be contaminated.

- E. C-62 and 63 – These historical borings are located in the vicinity of the former Pier Building within what has been noted to be AOC-13. Borings are proposed surrounding location C-62. Three samples (C2-16, 2-17, and 2-18) will be collected at 2.5- 3ft and analyzed for PAHs.

Delineation surrounding this location is an acceptable strategy. As previously stated delineation shall target all parameters of concern and all previously determined contaminated depth intervals. These boring locations were known to exhibit contamination at 2-2.5ft, 3-3.5 ft, and 5.5-6 ft. The proposed sample depths shall reflect these intervals. Also due to the location of the proposed samples, consideration should be given to the use of these

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borings as possible delineation points for the contamination detected within the Gypsum Landfill.

- F. C-4 – This former boring location was not specifically mentioned within the narrative of this report however it is included in Table 2. According to figure 8 as well as Table 2, three samples (C2-5, 2-6, 2-7) appear to be proposed surrounding this location. Samples will be collected from 7.5-8 ft and analyzed for PAHs, As, and Pb.

The proposed samples are acceptable. The proposed sample depth as well as parameter list corresponds to the previous contaminated zones. These samples may serve as lateral delineation points, however vertical delineation has not been established. This shall be addressed in the revision of this RI work plan. Also due to the contamination detected in MW-4 as well as the surrounding vicinity, VOC and naphthalene analyses shall be included.

- G. C-51 and 52 – These former boring locations were not specifically mentioned within the narrative of this report, however are included in Table 2. According to figure 8 and Table 2, one sample adjacent to each of these locations is proposed (C2-1 and 2-8). Samples will be collected from 7.5-8 ft and analyzed for PAHs.

These locations are actually in the vicinity of what is noted as AOC-12. AOC-12 is proposed to be excavated, however these two locations are not included within the boundaries of the remedial action. The proposal to collect additional delineation borings is an acceptable strategy. The depths shall reflect the previous depths of contamination (i.e. 5.5-6 ft, 6-6.5 ft, and 8.5-9 ft). The highest levels of PAHs were detected at C-51 at 8.5-9 ft. The proposed 7.5-8 ft depth will not address lateral delineation concerns at these depths. Vertical delineation shall also be considered if the proposed base post-ex sample does not establish a vertical clean zone. The proposal shall be modified to reflect these concerns.

- H. PT-3 – This sample is part of a series of delineation and investigatory borings advanced to delineate the contamination at AOC-15 and to investigate the possible presence of a UST in the vicinity of AOC-15. This sample (PT-3) was not specifically mentioned within the narrative of this report. It is included within Table 2. One sample (C2-9) is proposed to the west of this location. The sample will be analyzed for PAHs and TPH.

It is unclear as to why only sample PT-3 is noted within Table 2, as other samples within this immediate vicinity contain higher levels of contamination. Delineation of this area as a whole shall be proposed, not just in relation to this one sample location. Additionally no depths for PT-1 to PT-5 were provided for review (refer to above comments for AOC-15), therefore comments pertaining to sample collection depth cannot be made at this time. Lastly, other contaminants besides PAHs and TPH have been detected (VOCs, As, Be, Cd, Pb, and Se) and must be delineated. As stated in comment # 1 above, this area is a RCRA regulated unit and will need to be closed pursuant to 40 CFR Part 264.197.

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9. Southern Portion of the Site – Coal tar (free product) has been identified on the southern portion of the Celotex property as well as on the adjacent Quanta site. Onsite samples C-12, 13, 32, 33, 57, 58, and 59 contained evidence of this material. Borings and test pit data indicates that the free product plume extends over a three-acre area on the southern portion of the property.

At a minimum all sources to ground water contamination shall be removed and delineation to the NJDEP most stringent criteria must be completed – extending offsite where necessary. Only after this has been accomplished will the Department review a remedial proposal for capping and the recording of a deed notice for the contamination above the Department's residential criteria.

Ecological Evaluation

10. (p. 10) It is stated in Section 5.8 that EWMA will conduct the BEE in conjunction with ESI, the remedial contractor for the Lustrelon property directly to the north, and GeoSyntec, consultants for the Allied Signal Corporation, the responsible party for the Quanta Superfund Site immediately to the south. While it is appropriate to coordinate the evaluations and to share data collection/evaluation efforts, more detail shall be provided as to the specific responsibilities of each contractor and information that each will supply (i.e., new data that will be collected or existing data that will be shared). It is noted that the aerial photograph supplied in EWMA's September 1 supplemental information includes sediment sample locations for current Geosyntec work, but it is unclear whether historical sample locations are included. No information is provided regarding previous or current locations for the Lustrelon site. Also, it is unclear which of the samples on the aerial photograph will actually be used to evaluate the Celeotex property, since the source is a map from GeoSyntec for the Quanta site.
11. The work plan shall be supported by a presentation of all existing sediment/surface water data, supported by pertinent information, such as contractor responsible, year of collection, sample depths, etc. Analytical data shall be presented in tabular summary as well as on a site map, for ease of evaluating concentration gradients, contaminant profiles, etc.
12. (p.14) It is stated in Section 6.8 that "EWMA proposes to clarify which samples will be used as reference locations and the reasons for choosing those samples." However, no further information is provided on reference samples. This is a critical component of a BEE work plan, since reference data are relied heavily upon for risk management decision-making. This information shall be supplied in a revised work plan or addendum.
13. Proposed sample locations have been presented in three locations in these documents: Figure 10 in the August 17, 1999 Work Plan, Figure 1 in the September 1, 1999 addendum, and the table in the September 1 addendum. The table lists 11 sample locations, but Figures 1 and 10 present more than 11 proposed locations. Samples 99EE-1, 2, and 3 from the table are not labeled on the aerial photograph, nor are any samples labeled on Figure 10. Additionally, the number of samples depicted on Figures 1 and 10 are not consistent; a greater number of proposed samples locations appear on Figure 10. The exact number of samples, locations, and labels shall be clarified in a revised work plan or addendum; the number and locations of reference samples shall be included.

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14. No information regarding field sampling procedures, quality assurance samples, or specific sample depths has been provided. Justification for the overall sampling network design shall be included.

ADDITIONAL COMMENTS

15. Site Delineation – The currently proposed samples along the western portion of the Celotex site will aid in delineating the contamination previously detected onsite, however they do not address the need for investigation beyond new River Rd. All potential areas of concern must be addressed. The Department is aware that the original property boundary was to the west of new River Rd. As operations were likely to have been conducted within this area (original building foundations extended beyond new River Rd.) sampling should be performed at depths corresponding to all intervals in question – i.e. original fill, current grade, etc. A grid-sampling plan is advised.
16. Volatile Contamination – Historical site data as well as ground water data indicates that VOCs are a concern on the Celotex property. VOCs have not been targeted within this phase II workplan. As stated above additional investigation for VOCs is required. All sources must be clearly identified by EWMA on behalf of Edgewater Enterprises.
17. Soil from the continuing care facility on Old River Road was originally placed in piles near MW 11. I had requested that these piles be sampled prior to being moved. They were not and the piles are no longer there. It was evident to Chris Kirby and myself that the soil was graded around the area of MW 11. I had instructed Chris to include in this work plan a soil sampling plan for this area. It is missing from this plan. A soil sampling plan for this area shall be included in the revised RI work plan.

Ground Water

In general the ground water investigation proposed in the work plan is extremely deficient and unacceptable. It provides no details as to sampling locations, parameters, analytical methods, sampling techniques etc. and does not address all the issues in the Department's 12/15/97 letter. Since this is a Phase II Remedial Investigation Work Plan all work to be performed shall be discussed in detail and shown on figures in the work plan.

1. The ground water investigation states that Edgewater Enterprises agrees that another round of sampling is prudent. This is a very vague statement. It does not state which wells will be sampled, or indicate the sampling parameters. It is assumed that all wells will be sampled for Priority Pollutants + 40. EWMA needs to clarify this and needs to specify which wells will be sampled and what type of sampling techniques will be used.
2. The work plan states that Edgewater Enterprises agrees that ground water should be sampled in the areas noted. Again, this is a vague statement. This shall be clarified in the revised work plan.
3. The work plan states that the Department recommends conducting synoptic 72 hour ground water tests 30 days apart for each sample location. It is not clear what this statement means or that Edgewater Enterprises agrees to perform the work. From the use of the term "72 hours" it sounds like EWMA is discussing two tidal studies as required by the Technical Requirements for Site Remediation (N.J.A.C. 7:26B-4(h)3ii) but this is not clear. Edgewater

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Enterprises shall clearly state what type of test will be done, the wells involved and the detailed procedures that will be followed.

4. The work plan states that the vertical extent of contamination will be determined by installing either wells or hydropunch in the vicinity of wells MW-2 and MW-7. This was one of the requirements in the Department's 12/15/97 letter and it is acceptable. However, since this is a work plan Edgewater Enterprises shall specify whether wells or hydropunch will be used as well as well sampling parameters. Also the exact procedures for either well or hydropunch installation shall be discussed.
5. Edgewater Enterprises recommends that since the site is being graded that alternative ground water sampling techniques be used and wells be installed later if necessary. This is unacceptable. The ground water investigation shall be conducted concurrent with the Phase II RI.
6. The Department's 12/15/97 letter approved the installation of 5 additional wells proposed by Environmental Sciences Inc. (ESI) in the June 1997 RI Report to investigate site ground water quality. This report did not address these wells. Please clarify whether or not these wells were ever constructed and if not when their construction is planned. The Department's letter of 12/15/97 asked for clarification of the locations etc. of these wells.
7. The Department's 12/15/97 letter allows the use of alternative ground water sampling techniques, but points out that since metals are a contaminant at the site, the turbidity may be too high to use this technique in all locations. Edgewater Enterprises shall address this issue in the revision of this work plan.
8. The Department's 12/15/97 letter required horizontal and vertical delineation of ground water contamination to the Ground Water Quality Standards. This is required in accordance with the Technical Requirements for Site Remediation (N.J.A.C. 7:26E-4.4(h)3i). Edgewater Enterprises discussed the issue of vertical delineation as described in comment #4 above. However, the issue of horizontal delineation has not been addressed. Edgewater Enterprises shall address this issue in the revised RI work plan.
9. The Department's 12/15/97 letter required that all boring logs and well construction diagrams be submitted for all new and existing wells. Edgewater Enterprises shall include this in the revised RI work plan.
10. The Department's 12/15/97 letter required at least two ground water elevation contour maps be developed for the site in accordance with the Technical Requirements for Site Remediation (N.J.A.C. 7:27E-4.4(h)3ii). Edgewater Enterprises shall include these in the revised RI work plan.
11. The Department's 12/15/97 letter required a well search in accordance with the Technical Requirements for Site Remediation (N.J.A.C. 7:27E-4.4(h)3v). This shall be addressed.

On September 13, 1999 I met with Chris Kirby of EWMA at the site and discussed the following issues that still need to be addressed:

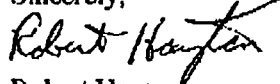
Mr. Scott Heller
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- The soil pile next to the sales area was supposed to be sampled and the analysis reviewed by the Department prior to relocating. Chris was going to find out where the soil pile was moved to and obtain any data from any analyses.
- On top of the road cut pile there was a 10' x 10' hole approximately 15 feet deep. Chris was going to send me information on this hole.
- MW 11 was to be located and determined if was still viable. If not it would have to be sealed and replaced.
- There were 4 piles of material placed on and covered with black plastic near MW 36 and the road cut piles. Chris was going to provide me with information as to where it came from and what it was contaminated with.

In general EWMA shall resubmit a much more detailed Phase II Remedial Investigation Work Plan which is prepared in accordance with the Technical Requirements for Site Remediation (N.J.A.C. 7:27E-4.2) for both the soil and ground water investigation and addresses all the above comments to the Department's satisfaction. This shall include maps showing sample locations, analytical parameters and methods and sampling methods. The figures included with this recent submittal were difficult to work with. EWMA shall submit figures that are easier to read and more clearly discern between what is proposed and what is existing. A revised work plan shall be submitted to the Department within 45 days of receipt of this letter.

If you have any questions please call me at (609) 633-0744.

Sincerely,



Robert Hayton
Bureau of Case Management

C: Mr. Christopher Kirby, EWMA
Mr. Bob Montgomery, USEPA
Chris Lacy, NJDEP
Anne Pavelka, NJDEP
Nancy Hamill, NJDEP



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By facsimile (609-633-1439) and FedEx

April 27, 2001

Mr. Robert Hayton
NJDEP-Bureau of Federal Case Management
P. O. Box 028
401 East State Street
Trenton NJ 08625-0028

Re: Former Celotex Industrial Park Property
River Road, Edgewater, Bergen County
EWMA Project #200957

Subject: Response to Comments
NJDEP Comment Letter dated January 12, 2000

Dear Mr. Hayton:

Pursuant to your March 15, 2001 correspondence, we are providing a formal response to the comments in your January 12, 2000 letter regarding remediation activities at the referenced site. While a formal response was not prepared earlier, most of the activities required by the January 12, 2000 letter were performed, and results reported in subsequent documents and correspondence submitted to the NJDEP. The submitted documents are listed immediately below. For easy reference, the NJDEP's comments from the January 12, 2000 letter are printed in bold type, with each followed by a response to the comment. Per our discussions and email, the due date for this response to NJDEP comments was extended to April 27, 2001.

Referenced NJDEP submissions:

- Phase II Remedial Investigation Workplan, August 17, 1999
- RCRA Hazardous Waste Management Facility Closure Plan, March 2000
- Soil Pile Next to Sales Area letter report, March 28, 2000
- Remedial Investigation Report, September 2000
- Phase II Remedial Investigation Workplan, October, 2000
- RCRA Closure Activities Progress Report, October 13, 2000
- RCRA Closure Activities Progress Report # 2, December 21, 2000

GENERAL COMMENTS

- 1. Former 150,000 Gal. Above Ground Storage Tanks (AGSTs) AOC 15- These tanks were located within a concrete secondary containment unit. The AGSTs were dismantled and removed from the site. The concrete footprint of the containment structure remains intact. No letter of closure*

was issued by USEPA under TSCA. It should be noted that this Area of Concern (AOC) is the former location of All County Environmental Services Corporation which was a hazardous waste treatment storage and disposal facility that was and is regulated under the Resource Conservation and Recovery Act (RCRA). In order to fulfill the requirements of RCRA you are required to demonstrate closure of the unit pursuant to 40 CFR 264.197. A report shall be submitted to the Department documenting the closure of the unit that has taken place to date. This report shall include full documentation of all aspects of the closure pursuant to the above cited federal regulation including but not limited to:

- *Tank content analyses*
- *Detailed discussion of tank content removal procedures*
- *Manifests documenting ultimate disposition of hazardous waste*
- *Decontamination procedures of all piping and tank structures*
- *Wipe sample analyses of piping and tank structures*
- *Ultimate disposition of all piping and tank structures*

Response: EWMA prepared and submitted the revised RCRA Hazardous Waste Management Facility Closure Plan, dated March 2000 for the All County Environmental Services Corporation area of the site. Two subsequent Progress Reports have been submitted (October 2000, December 2000) which address soil issues for the area. Groundwater investigation activities remain to be completed. Specific sections are outlined below that correspond to the notations above.

Tank content analysis	Section 3.1
Detailed discussion of tank content removal procedures	Sections 4.1.1, 4.4.1
Manifests documenting ultimate disposition of hazardous waste	Awaiting response from ESI
Decontamination procedures of all piping and tank structures	Sections 4.1.1, 4.4.2
Wipe sample analyses of piping and tank structures	Sections 4.1.1, 4.4.1

1. *(cont.) The data provided in Appendix 3 indicates a high correlation between it and the data from the waste sample analyses obtained by EPA on March 16, 1998. This correlation indicates a release has occurred from the regulated tanks. Pursuant to the above cited federal regulation! if "not all contaminated soils can be practicably removed or decontaminated as required.....then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills (§264.310)." Please submit a closure plan for the remaining tank containment area and tank trailer holding area immediately south of the containment area. This closure plan shall conform to the above cited federal regulations. Ground water monitoring wells shall be placed around the secondary containment area for the AGSTs in such a way to determine if the ground water has been impacted by the release. This is typically done by placing 3 monitoring wells down gradient and one upgradient of the area of concern. These wells shall be placed close to the area of concern so as to minimize possible interference from other areas of concern.*

Response: As discussed above, the closure plan has already been submitted to the NJDEP. The March 2000 Closure Plan details the installation of the four (4) associated monitoring wells. As discussed between EWMA and the NJDEP Case Manager, installation of

three of the monitoring wells has not yet been completed due to ongoing construction constraints. Installation of the remaining monitor wells will commence subsequent to the completion of nearby pile-driving activities.

- 1. (cont.) The sample depths for PT-1 to PT-5 were not noted within the Aug. 1999 report. The sample summary sheets should be revised to reflect the depth of sample collection. Delineation of all parameters of concern for this area must be established. It is noted that one sample (C2-9) is proposed in this vicinity, however it is unclear as to the purpose of this one sample.*

Response: The PT-1 to PT-5 sampling locations are now irrelevant due to the subsequent RCRA area investigation/closure activities which encompassed the area of these five samples. The proposed sample location C2-9 was not utilized.

- 2. Gypsum Landfill - A separate remedial investigation report was submitted for this area in June 1999. Test pits and soils borings were completed within this area. A request for no further investigation was made within the June 1999 report. A request for no further action has been made to the NJDEP Bureau of Landfill Engineering for approval.*

The Department has not received a response to our August 18, 1999 comment letter concerning the access road soil stockpile and gypsum board landfill. These comments shall be addressed as part of the response to this comment letter. The landfill closure report shall also be submitted.

Response: The requirements for further investigation outlined in the August 18, 1999 comment letter were acknowledged in a letter to the NJDEP dated September 1, 1999 and subsequently implemented. Further activities at the landfill area are reported in the October 2000 Gypsum Landfill Issues Report by EWMA. Following completion of the landfill capping and additional investigation work to be performed, a final closure report will be submitted to the NJDEP.

- 2. (cont.) Attachment 2 of the 9/1/99 EWMA letter was also reviewed. It appears that four additional borings (LFB2-1, 2-2, 2-3 and 2-4) are proposed within the landfill area. Samples, according to the attached table will be analyzed for VOCs, PCBs, and PAHs depending upon the boring. These additional locations are acceptable, however only address a few of the Department's concerns outlined in the 8/18/99 letter.*

Response: These investigation activities and further concerns are discussed in Section 2.4.2 of the September 2000 RIR, previously submitted.

- 2. (cont.) In a recent discussion with Chris Kirby of EWMA, it was requested that surplus gypsum board from the landfill be allowed to be used as fill material elsewhere on site. This material can not be used as fill material on site. The material is regulated as solid waste and shall be disposed of accordingly.*

Response: All regulated waste from the Gypsum landfill area will be placed within boundaries of the landfill that will then be surveyed and permanent markers installed.

- 3. AOC 12 - The proposal to perform soil removal within these areas was previously approved by the Department. The proposal is still acceptable. Edgewater Enterprises should clearly document at what depth the original contamination was located in relation to the excavation boundaries and*

post-ex sample depth intervals. All significant contamination within these locations should be removed during this next phase.

Response: Section 2.4.5 of the September 2000 RIR provides the pertinent details. As such, there are no outstanding deficiencies with respect to this item.

3. (cont.) *The proposal to include the contamination at C-56 to 61 with the offsite delineation strategy is acceptable at this time, however it is premature to discuss remedial options for this area of the site. The remedial strategy for this southern portion will likely require coordination with EPA/Allied Signal. But first delineation and characterization activities must be completed.*

Response: Both C-56 and C-61 are within the southern portion of the site and as such will be addressed as part of the EPA-guided remediation of the adjacent Quanta Site as described in Section 2.4.3 of the September 2000 RIR.

4. *AOC 13 - Academy Film - Three borings were completed (C-62, 63, 64) during the original phase of investigation to investigate the possible discharge of film process chemicals to the open drain system within this area. Two samples from each boring were collected at what was believed to be the depth of the former floor drains. Each sample was analyzed for PP+40. Only PAHs and As were discovered to be present at the sampled locations. The contamination was consistent with that detected across the remainder of the site, however no floor drain diagram was submitted for review as requested by the Department.*

Response: Sections 2.4.6.5 and 2.4.8 of the September 2000 RIR provide the pertinent details. As such, there are no outstanding deficiencies with respect to this item.

4. (cont.) *The proposal to include these locations in the site wide remedial investigation strategy was previously approved within the Department's 12/15/97 letter. This is still considered acceptable at this time. It should be noted that the highest arsenic concentrations in the Hudson River sediments have been detected adjacent to the Pier Building offshore of the former Lustrelon properly. Please refer to the GeoSyntec Oct. 1999 report generated for Allied Signal. The source of this arsenic is still considered to be from onsite operations. This issue is to be further investigated.*

Response: Section 2.3.6 of the September 2000 RIR provide additional information regarding this issue.

5. *AOC 14 = J&T Leasing - Three borings (C-65, 66, 67) were completed outside J&T Leasing, immediately north of building 1. Samples were collected from surface soils (0-4 ft) below grade from the area where a surface oil spill was noted. The samples were collected prior to the placement of additional fill material within this vicinity. Concentrations of TPH were above 10,000 at location C-6S (15,000 ppm). Elevated PAH levels were also noted to be present at 6 of 7 sampling locations.*

Sample location C-65 has since been removed. This location was excavated during the Parcel A project Contamination, however, does still remain above criteria at these locations.

No proposal was specifically noted for this area; however it is presumed that the remaining contamination will be addressed along with the site wide delineation strategy. This is acceptable.

Eventually figures depicting clean zone boundaries for all depth intervals will need to be submitted to the Department for review.

Response: Elevated PAH levels detected in soils near J&T Leasing will be capped and identified as part of the site-wide Deed Notice. As such, there are no outstanding deficiencies with respect to this item.

6. *AOC 16 - Havana Potato and Transport Co. - Historically one sample (C-68/C-16) was collected from an area of heavy staining adjacent to a diesel AGST southwest of building 1. The results reported TPH and PAHs below criteria, however the location of the sample was questioned by NJDEP.*

The location of the sample has been clarified as outside the original building footprint from within the area of staining. The building had been demolished prior to sampling. Figure 3 of the original RI report indicating that the sample was collected below former Building 1 was incorrect. It is presumed that no additional actions specific to this sample location are proposed. This is acceptable at this time.

Response: No response required.

7. *Hot Spot Areas of Concern - Based on the Department's review of specific criteria such as land use, toxicity, and contaminant concentrations (i.e. As and CaPAHs). it had been determined that potential hot spots exist that would significantly increase the short-term threat to health, safety and the environment. Therefore the Department required source removal at specific locations on the Edgewater Enterprises property, prior to implementation of a non-permanent remedial action (e.g. capping with institutional controls).*

The 12/15/97 NJDEP letter outlined the specific locations to be addressed - PAHs = C-45, 46, 47, 50, 08;

Arsenic - C-4, C-79, C-89, and C-90. Based on additional reviews and discussions held between previous land owner, Edgewater Associates and the Department representatives, additional locations were added, including C-48. Please note that additional locations are also being considered hot spots, however removal actions were not yet required. Some of these locations will be investigated by delineation boring locations. These locations include C-32, 34, 35, C49, 51, 52, C-56 to 61, C-57, and C-77. Some of these locations were already addressed during the implementation of other activities related to the pending development of the site.

- A. *C-45, 46, 47, 48 and 50 - The PAH contamination at these locations will be addressed by excavation and removal. Two separate excavations will be performed (C-45, 46, 47) and (C-48 and 50). Each excavation will address the contamination at specific depths. Soil will be removed from a 10 x 10-ft area extending approximately 4.0 ft vertically at the interval in question. Five post-ex samples from each hot spot will be collected (4 sidewall/1base). The samples will be analyzed for PAHs. All soil removed will be disposed at a certified facility. The excavated areas will be backfilled with soil that meet the New Jersey Residential Soil Standards.*

A proposal to address these two areas was previously commented on within the Department's 2/24/99 correspondence. The reuse of any soil above the zone of removal

was not recommended. This soil has not been sampled/characterized and may not be "reused" without sampling. All soil shall be disposed offsite and the entire excavated area be backfilled with certified clean fill.

During excavation activities all contaminated intervals shall be removed. The following intervals shall be considered for removal. C-45 (5.5-6 ft, 8.5-9 ft); C-46 (6.5-7 ft); C-47 (8.5-9 ft); (7-7.5 ft, 8-8.5 ft), C-50 (8.5-9.0 ft). The post-ex samples shall take these depths into consideration.

Response: The C-45, C-46, C-47, C-48, and C-50 hot spot areas have been excavated and backfilled as detailed in Sections 2.4.5 and 2.4.5.1 of the September 2000 RIR, previously submitted.

- B. C-98 - This boring is located to the southwest of the Gypsum Landfill. Elevated PAHs were detected within this area at a depth of 7.5-8.0 ft. As stated above removal of the soil in this area was required.*

It is unclear in this work plan as to how this area will be addressed. Edgewater Enterprises states that this area still requires removal however does not specifically state that it will be included in the upcoming removal action. Figure 8 also does not depict this area being excavated. It appears that additional delineation samples will be collected surrounding this location. This area needs to be further addressed in the revision to this work plan.

Response: C-98 has been excavated and backfilled as detailed in Sections 2.4.5 and 2.4.5.2 of the September 2000 RIR, previously submitted.

- C. C-89 and 90 - These areas were identified for the removal of soils contamination with high levels of arsenic. During the Parcel A project the soil at these two locations was excavated. This removal was approved by the Department within the 2/11/99 letter.*

Response: The NJDEP comment indicates no outstanding deficiencies for this item.

- D. C-4 and C-79 - These two areas were previously determined to be hot spots for arsenic. The Department requested the removal of this contamination within the 12/15/97 letter. Edgewater Enterprises acknowledges that removal is necessary at both locations, however has not proposed excavation. It is also noted that these locations are not included on Figure 8.*

Edgewater Enterprises shall include in the revised RI work plan a detailed discussion on how these areas will be excavated. Removal is still considered necessary. According to the report it appears that only delineation sampling is proposed.

Response: C-4 and C-79 have been excavated and backfilled as detailed in Sections 2.4.5 and 2.4.5.3 of the September 2000 RIR, previously submitted.

- 8. Site Wide Fill Delineation -In addition to onsite areas, offsite areas also require both horizontal and vertical delineation to determine the extent of the contamination.*

- A. C-74, 75, 76, and 77 - Four borings are to be advanced (C2-24 to 2-27) to the west of each*

of these historical boring locations. Samples are proposed to be collected at 7.5-8.0 ft and analyzed for PAHs.

The proposal to pursue delineation to the west of those boring locations is an acceptable strategy. However, delineation must be completed for all contaminants elevated above their respective most stringent criteria. PAHs are not the only contaminants of concern at these former boring locations. For example Pb and As are present at C-77. Also, all contaminated intervals must be delineated. Whether or not the 7.5-8.0 ft proposed sampling interval would address the former 0-6" interval as well as the 12.5-13 ft and 15.5-16 ft interval at C-77 is unlikely. This shall be clarified, with greater sampling proposal details provided as well as a proposal for additional sampling depths. Vertical delineation shall also be completed.

A revised proposal shall be developed that reflects the above noted concerns.

Response: Test data from the delineation borings at C-74, 75, and 76 indicate compliance with the unrestricted SCC for the parameters of concern as detailed in Section 2.4.6.1 of the September 2000 RIR, previously submitted. The C-77 area was excavated as detailed in Sections 2.4.5.4 and 2.4.6.1 of the same report.

- B. *C-79 and 80 - Three borings are to be advanced to the south and west of these two historical locations. Samples are proposed to be collected at 7.5-8 ft for PAH and As analysis. In addition four samples will be collected in the vicinity of C-79. These samples will be collected at 5.5-5 ft, 7-7.5 ft, 4.5-5 ft, and 7.5-8 ft. These additional samples will address the concerns with the other contaminants present, including Cu, Pb, and Tl.*

As stated for the area above, the proposal to pursue delineation in the vicinity of these boring locations is an acceptable strategy. However, delineation shall be completed for all contaminants elevated above their respective most stringent criteria. PAHs are not the only contaminants of concern at these former boring locations. In addition to PAHs and As, Pb, Sb, H₂, Cu, and Se are also known to be elevated in this vicinity. Not all of these contaminants are addressed by the above proposal. Delineation is especially important near the adjacent property boundaries. Vertical delineation is also necessary and does not appear to be addressed by the proposed borings outlined in Table 2.

A revised proposal shall be developed that reflects the above noted concerns.

Response: Subsequent investigation of this area is documented in Sections 2.4.5.3 and 2.4.6.2 of the September 2000 RIR, previously submitted. The C-79 area was excavated, with post-excavation samples indicating that soils contaminated with high levels of arsenic remain in place. Further action for this "arsenic" area will be addressed in a workplan currently under preparation.

- C. *C-32, 34, and 35 - The report specifically documents that proposed delineation samples would address this area. These borings are not included in Table 2, however it appears that the samples noted for MW-1 and MW-21 are also being used for delineation of C-32, 34, and 35. Two samples are proposed (C2-19 and 2-20) at 7.5-8.0 ft. Both samples will be analyzed for PAHs.*

This proposal does not adequately address the contamination detected in C-32, 34, and 35. Locations C-32 and 34 are considered hot spots due to the levels of PAHs previously detected. Contamination was previously detected at 5.5-6 ft, 7.7.5 ft, and 7.5-8 ft. It should be noted that only PAHs were analyzed, a complete priority pollutant metals scan and VOC analysis was not completed at these locations. Samples to the south and west of these locations are acceptable, however must take all concerns into consideration. Ground water in this area is contaminated with VOCs, As, and Naphthalenes. Soils shall also be analyzed for these parameters in addition to PAHs. Vertical delineation is also necessary in the immediate vicinity of these locations.

A revised proposal shall be developed that reflects the above noted concerns.

Response: Investigation activities in the noted areas of C-32, 34, and 35 are documented in Section 2.4.6.3 of the September 2000 RIR, previously submitted.

- D. *C-97 and 98 - According to figure 8 historical location C-98 will be delineated by three sampling locations (C2-13, 2-14, and 2-15). Samples will be collected from 7.5-8 ft at all three locations. Each sample will be analyzed for PAHs.*

The proposal to delineate this location is acceptable, however this area is also noted to be a hot spot and in need of removal. It is unclear as to why samples are being collected at this point in time. It would appear beneficial to remove the area of contamination first and collect post-ex samples for all contaminants of concern. PAHs are not the only contaminants of concern at this location. Arsenic and lead levels were also found to be elevated at the 7.5- 8.0-ft interval within C-98 and shall be addressed.

Location C-97 is noted as requiring delineation, however no proposal is noted within this report. Elevated PAHs are present at this location, which is adjacent to the shoreline along the southern portion of the site. As contamination likely extends to the water, it does not appear beneficial to collect samples surrounding this location at this time, as they are likely to be contaminated.

Response: Subsequent investigation of C-97 is documented in Sections 2.4.6.4 and 2.4.6.3 of the September 2000 RIR, previously submitted. C-98 has been excavated and backfilled as detailed in Sections 2.4.5 and 2.4.5.2 of the same report.

- E. *C-62 and 63 - These historical borings are located in the vicinity of the former Pier Building within what has been noted to be AOC-13. Borings are proposed surrounding location C-62. Three samples (C2-I6,2-17, and 2-18) will be collected at 2.5- 3ft and analyzed for PAHs.*

Delineation surrounding this location is an acceptable strategy. As previously stated delineation shall target all parameters of concern and all previously determined contaminated depth Intervals. These boring locations were known to exhibit contamination at 2-2.5ft, 3-3.5 ft, and 5.5-6 ft. The proposed sample depths shall reflect these intervals. Also due to the location of the proposed samples, consideration should be given to the use of these borings as possible delineation points for the contamination detected within the Gypsum Landfill.

Response: The investigation of C-62 and C-63 is documented in Section 2.4.6.5 of the September 2000 RIR, previously submitted.

- F. *C-4 - This former boring location was not specifically mentioned within the narrative of this report however it is included in Table 2. According to figure 8 as well as Table 2, three samples (C2-5, 2-6, 2-7) appear to be proposed surrounding this location. Samples will be collected from 7.5-8 ft and analyzed for PAHs, As, and Pb.*

The proposed samples are acceptable. The proposed sample depth as well as parameter list corresponds to the previous contaminated zones- These samples may serve as lateral delineation points, however vertical delineation has not been established. This shall be addressed in the revision of this RI work plan. Also due to the contamination detected in MW-4 as well as the surrounding vicinity, VOC and naphthalene analyses shall be included.

Response: Subsequent investigation activities in the area of C-4 are documented in Sections 2.4.5.3 and 2.4.6.2 of the September 2000 RIR, previously submitted.

- G. *C-51 and 52 - These former boring locations were not specifically mentioned within the narrative of this report, however are included in Table 2. According to figure 8 and Table 2, one sample adjacent to each of these locations is proposed (C2-1 and 2-8). Samples will be collected from 7.5-8 ft and analyzed for PAHs.*

These locations are actually in the vicinity of what is noted as AOC-12. AOC-12 is proposed to be excavated, however these two locations are not included within the boundaries of the remedial action. The proposal to collect additional delineation borings is an acceptable strategy. The depths shall reflect the previous depths of contamination (i.e. 5.5-6 ft, 6-6.5 ft, and 8.5-9 ft). The highest levels of PAHs were detected at C-51 at 8.5-9 ft. The proposed 7.5-8 ft depth will not address lateral delineation concerns at these depths. Vertical delineation shall also be considered if the proposed base post-ex sample does not establish a vertical clean zone. The proposal shall be modified to reflect these concerns.

Response: The C-50 and C-51 locations were not included in the AOC-12 hot spot removal action detailed in Sections 2.4.5 of the September 2000 RIR. The contaminant concentrations found in these samples are within the limits to be addressed by the site wide deed notice.

- H. *PT-3 - This sample is part of a series of delineation and investigatory borings advanced to delineate the contamination at AOC-15 and to investigate the possible presence of a UST in the vicinity of AOC-15. This sample (PT-3) was not specifically mentioned within the narrative of this report. It is included within Table 2. One sample (C2-9) is proposed to the west of this location. The sample will be analyzed for PAHs and TPH.*

It is unclear as to why only sample PT-3 is noted within Table 2, as other samples within this immediate vicinity contain higher levels of contamination. Delineation of this area as a whole shall be proposed, not just in relation to this one sample location. Additionally no depths for PT-1 to PT-5 were provided for review (refer to above comments for AOC-15),

therefore comments pertaining to sample collection depth cannot be made at this time. Lastly, other contaminants besides PAHs and TPH have been detected (VOCs, As, Be, Cd, Pb, and Se) and must be delineated. As stated in comment # 1 above, this area is a RCRA regulated unit and will need to be closed pursuant to 40 CFR Part 264.197.

Response: See response to comment #1.

9. *Southern Portion of the Site - Coal tar (free product) has been identified on the southern portion of the Celotex property as well as on the adjacent Quanta site. Onsite samples C-12, 13, 32, 33, 57, 58, and 59 contained evidence of this material. Borings and test pit data indicates that the free product plume extends over a three-acre area on the southern portion of the property.*

At a minimum all sources to ground water contamination shall be removed and delineation to the NJDEP most stringent criteria must be completed - extending offsite where necessary. Only after this has been accomplished will the Department review a remedial proposal for capping and the recording of a deed notice for the contamination above the Department's residential criteria.

Response: The southern portion of the site will be addressed as part of the EPA-guided remediation of the adjacent Quanta Site as described in Section 2.4.3 of the September 2000 RIR.

ECOLOGICAL EVALUATION

10. *(p. 10) It is stated in Section 5.8 that EWMA will conduct the BEE in conjunction with ESI. the remedial contractor for the Lustrelon property directly to the north, and GeoSyntec. consultants for the Allied Signal Corporation, the responsible party for the Quanta Superfund Site immediately to the south. While it is appropriate to coordinate the evaluations and to share data collection/evaluation efforts, more detail shall be provided as to the specific responsibilities of each contractor and information that each will supply (i.e., new data that will be collected or existing data that will be shared). It is noted that the aerial photograph supplied in EWMA's September 1 supplemental information includes sediment Sample locations for current Geosyntec work, but it is unclear whether historical sample locations are included. No information is provided regarding previous or current locations for the Lustrelon site. Also, it is unclear which of me samples on the aerial photograph will actually be used to evaluate the Celeotex property, since the source is a map from GeoSyntec for the Quanta site.*

Response: EWMA has included Baseline Ecological Evaluation (BEE) sediment sampling data in the September 2000 RIR (Table 4). EWMA is conducting additional BEE activities, which will be presented in a comprehensive BEE submission. EWMA will forward the results of the BEE under separate cover. All EWMA sample data has been forwarded to the pertinent parties (i.e., ESI for the adjoining Lustrelon site and GeoSyntec for the adjoining Quanta site). Likewise, all GeoSyntec and ESI data has been forwarded to EWMA. Each contractor (i.e., ESI, EWMA, and GeoSyntec) is responsible for completing a BEE for their respective sites.

11. *The work plan shall be supported by & presentation of all existing sediment/surface water data,*

supported by pertinent information, such as contractor responsible, year of collection, sample depths, etc. Analytical data shall be presented in tabular summary as well as on a site map, for ease of evaluating concentration gradients, contaminant profiles, etc.

Response: The ecological sampling data and information available at the time of preparing the September 2000 RIR were provided in that document. Additional ecological sampling information will be documented in the BEE as discussed in the prior comment.

12. *(p.14) It is stated in Section 6.8 that "EWMA proposes to clarify which samples will be used as reference locations and the reasons for choosing those samples." However, no further information is provided on reference samples. This is a critical component of a BEE work plan, since reference data are relied heavily upon for risk management decision-making. This information shall be supplied in a revised work plan or addendum.*

Response: Figure 8 of the September 2000 RIR provides the locations of surface water and sediment samples "99EE-1" "99EE-2" "99EE-3," and "99EE-12. These samples will serve as the reference locations for the BEE. EWMA selected these sample locations based on their up-river position with respect to the Site. As such, these samples demonstrate background surface water and sediment contaminant concentrations.

13. *Proposed sample locations have been presented in three locations in these documents: Figure 10 in the August 17, 1999 Work Plan, Figure I in the September 1, 1999 addendum, and the table in the September 1 addendum. The table lists 11 sample locations, but Figures I and 10 present more than 11 proposed locations. Samples 99EE-1, 2, and 3 from the table are not labeled on the aerial photograph, nor are any samples labeled on Figure 10. Additionally, the number of samples depicted on Figures I and 10 are not consistent; a greater number of proposed samples locations appear on Figure 10. The exact number of samples, locations, and labels shall be clarified in a revised work plan or addendum; the number and locations of reference samples shall be included.*

Response: The correct sample locations for the river sediment and surface water sampling event have been submitted to the NJDEP as Figure 8 in the September 2000 RIR.

14. *No information regarding field sampling procedures, quality assurance samples, or specific sample depths has been provided. Justification for the overall sampling network design shall be included.*

Response: EWMA has collected all environmental samples in accordance with New Jersey Administrative Code (NJAC) 7:26E ("Technical Requirements for Site Remediation") and the Field Sampling Procedures Manual published in 1992 by the NJDEP. The comprehensive BEE report submission will include details (e.g., depths, QA/QC, etc.) pertaining to all samples. The comprehensive BEE report will also include sampling rationale or "overall sampling network design."

ADDITIONAL COMMENTS

15. *Site Delineation - The currently proposed samples along the western portion of the Celotex site*

will aid in delineating the contamination previously detected onsite, however they do not address the need for investigation beyond new River Rd. All potential areas of concern must be addressed. The Department is aware that the original property boundary was to the west of new River Rd. As operations were likely to have been conducted within this area (original building foundations extended beyond new River Rd.) sampling should be performed at depths corresponding to all intervals in question - i.e. original fill, current grade, etc. A grid-sampling plan. is advised.

Response: Delineation off-site is detailed in Section 2.4.11 of the September 2000 RIR, previously submitted.

16. Volatile Contamination - Historical site data as well as ground water data indicates that VOCs are a concern on the Celeotex property. VOCs have not been targeted within this phase II workplan. As stated above additional investigation for VOCs is required. All sources must be clearly identified by EWMA on behalf of Edgewater Enterprises.

Response: The 1999 RIW proposed no volatile organic compound (VOC) soil sampling. However, the September 2000 RIR documents the VOC soil sampling for several areas (i.e., C-79, C-4, C-98, C-50, C-48, C-45, C-46, C-47, C-77, and Continuing Care Stockpile). A discussion of the VOC investigation is in Section 2.4.4 of this report. As such, there are no deficiencies with respect to this item.

17. Soil from the continuing care facility on Old River Road was originally placed in piles near MW 11. I had requested that these piles be sampled prior to being moved. They were not and the piles are no longer there. It was evident to Chris Kirby and myself that the soil was graded around the area of MW 11. I had instructed Chris to include in this work plan a soil sampling plan for this area. It is missing from this plan. A soil sampling plan for this area shall be included in the revised RI work plan.

Response: Section 2.4.7.2 of the September 2000 RIR details the investigation of the "Continuing Care Stockpile." As such, there are no deficiencies with respect to this item.

GROUND WATER

In general the ground water investigation proposed in the work plan is extremely deficient and unacceptable. It provides no details as to sampling locations, parameters, analytical methods, sampling techniques etc. and does not address all the issues in the Department's 12/15/97 letter. Since this is a Phase II Remedial Investigation Work Plan all work to be performed shall be discussed in detail and shown on figures in the work plan.

1. The ground water investigation states that Edgewater Enterprises agrees that another round of sampling is prudent. This is a very vague statement. It does not state which wells will be sampled, or indicate the sampling parameters. It is assumed that all wells will be sampled for Priority Pollutants + 40, EWMA needs to clarify this and needs to specify which wells will be sampled and what type of sampling techniques will be used.

Response: Three (3) groundwater sample events (i.e., 12/20/99-12/21/99, 2/15/01-2/16/01, and 3/28/01) have been conducted at the site since the receipt of this letter. Results from these sampling events have been provided to the NJDEP (September 2000 RIR and recent direct submittals of lab results). A proposed groundwater sampling program was

provided to the NJDEP in the October 2000 RI Workplan prepared by EWMA.

2. *The work plan states that Edgewater Enterprises agrees that ground water should be sampled in the areas noted. Again, this is a vague statement. This shall be clarified in the revised work plan.*

Response: See response to item 1.

3. *The work plan states that the Department recommends conducting synoptic 72 hour ground water tests 30 days apart for each sample location. It is not clear what this statement means or that Edgewater Enterprises agrees to perform the work. From the use of the term "72 hours" it sounds like EWMA is discussing two tidal studies as required by the Technical Requirements for Site Remediation (N.J.A.C.:7:26E-4(h)3ii) but this is not clear. Edgewater Enterprises shall clearly state what type of test will be done, the wells involved and the detailed procedures that will be followed.*

Response: EWMA has conducted the tidal study for this project in accordance with the October 2000, Phase II Workplan. A report containing all pertinent details is being submitted to the NJDEP as an attachment to EWMA's response to the NJDEP's March 15, 2001 comment letter.

4. *The work plan states that the vertical extent of contamination will be determined by installing either wells or hydropunch in the vicinity of wells MW-2 and MW-7. This was one of the requirements in the Departments 12/15/97 letter and it is acceptable. However, since this is a work plan Edgewater Enterprises shall specify whether wells or hydropunch will be used as well as well sampling parameters. Also the exact procedures for either well or hydropunch installation shall be discussed.*

Response: As stated, the August 1999 RIW proposed vertical delineation in the vicinity of monitoring wells MW-2 and MW-7. EWMA's October 2000 RIW did not include further details pertaining to the vertical delineation, and investigation work for delineation has not been conducted to-date. This area is within the southern portion of the site where construction is not planned at this time and the remediation activities are to be coordinated with the EPA-directed activities at the southern portion. As such, the vertical delineation in this area should be addressed as part of the overall groundwater investigation/monitoring for the site(s).

5. *Edgewater Enterprises recommends that since the site is being graded that alternative ground water sampling techniques be used and wells be installed later if necessary. This is unacceptable. The ground water investigation shall be conducted concurrent with the Phase II RI.*

Response: The resulting groundwater remedial investigation scope was proposed in the October 2000 RIW, which was commented on by the NJDEP in their March 15, 2001 letter. Additional wells have been installed at the site. See the EWMA response to comments to the NJDEP's March 15, 2001 letter.

6. *The Department's 12/15/97 letter approved the installation of 5 additional wells proposed by Environmental Sciences Inc. (ESI) in the June 1997 RI Report to investigate site ground water*

quality. This report did not address these wells. Please clarify whether or not these wells were ever constructed and if not when their construction is planned. The Department's letter of 12/15/97 asked for clarification of the locations etc. of these wells.

Response: The wells in-question have been installed by ESI. Monitoring wells MW-13, MW-14, MW-15, MW-16, and MW-17 were installed in September 1997. A copy of a groundwater contour map showing the location of these wells is provided as Attachment A. EWMA notes that ESI is currently contracted as environmental consultant for the site (Lustrelon) of the subject monitoring wells.

7. *The Department's 12/15/97 letter allows the use of alternative ground water sampling techniques, but points out that since metals are a contaminant at the site, the turbidity may be too high to use this technique in all locations. Edgewater Enterprises shall address this issue in the revision of this work plan.*

Response: EWMA conducted the 12/20/99-12/21/99 sample event in accordance with the Field Sampling Procedures Manual published in May 1992 by the NJDEP. EWMA conducted the 2/15/01-2/16/01 and 3/28/01 sample events in accordance with the United States Environmental Protection Agency (USEPA) "low-flow" monitoring well sampling guidelines, as proposed in the October 2000 RIW. Analytical results from the recent sampling events were provided to the NJDEP.

8. *The Department's 12/15/97 letter required horizontal and vertical delineation of ground water contamination to the Ground Water Quality Standards. This is required in accordance with the Technical Requirements for Site Remediation (N.J.A.C. 7:26E-4-4(h)3i). Edgewater Enterprises discussed the issue of vertical delineation as described in comment #4 above. However, the issue of horizontal delineation has not been addressed. Edgewater Enterprises shall address this issue in the revised RI work plan.*

Response: The October 2000 RIW addresses these comments. The proposed wells will be installed in the near future upon completion of the piling activities at the site.

9. *The Department's 12/15/97 letter required that all boring logs and well construction diagrams be submitted for all new and existing wells, Edgewater Enterprises shall include this in the revised RI work plan.*

Response: ESI managed the installation of the monitoring wells in-question. ESI provided EWMA with copies of well logs for monitoring wells MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, MW-17A, MW-18. Copies of these logs are provided as Attachment B to this letter. Also, the September 2000 RIR contains boring logs from the subsequent investigation.

10. *The Department's 12/15/97 letter required at least two ground water elevation contour maps be developed for the site in accordance with the Technical Requirements for Site Remediation (N.J.A.C. 7:27E-4.4(h)3ii). Edgewater Enterprises shall include these in the revised RI work plan.*

Response: Attachment A is a groundwater contour map created by ESI from data collected during the February 1998 sampling event. A second groundwater contour map was created from data collected during the December 1999 sampling event. This contour

map was submitted to the NJDEP as Figure 17 of the September 2000 RIR. A groundwater contour map generated from the February 2001 sampling event is provided as an attachment to the March 15, 2001 comment letter response.

11. The Department's 12/15/97 letter required a well search in accordance with the Technical Requirements for Site Remediation (N.J.A.C. 7:27E-4.4(h)3v). This shall be addressed.

Response: A well search has been completed, documented, and submitted by ESI for the Lustrelon property. The NJDEP has accepted this well search as also applicable to the subject site, which identified no domestic, industrial, or public supply wells.

ADDITIONAL NOTES

On September 13, 1999 I met with Chris Kirby of EWMA at the site and discussed the following issues that still need to be addressed:

- ***The soil pile next to the sales area was supposed to be sampled and the analysis reviewed by the Department prior to relocating. Chris was going to find out where the soil pile was moved to and obtain any data from any analyses.***

Response: Detailed information concerning the "sales area stockpile" is included in the September 2000 RIR in Section 2.4.7.1. Analytical results for samples collected from the referenced area were submitted to the NJDEP on March 28, 2000.

- ***On top of the road cut pile there was a 10' x 10' hole approximately 15 feet deep. Chris was going to send me information on this hole.***

Response: After a thorough file review and questioning of pertinent parties for an explanation of this excavation, EWMA has been unable to obtain additional information regarding this hole. It is not clear if this was an excavation, or if the stockpile was formed with a depression in the middle, perhaps later filled in with the higher material on the sides. Due to the ongoing construction activities at the site it is likely that there remains no evidence to further investigate this item. No further action is proposed.

- ***MW-11 was to be located and determined if was still viable. If not it would have to be sealed and replaced.***

Response: Monitoring well MW-11, which was covered over by building debris and soil, has since been located and verified as viable.

- ***There were 4 piles of material placed on and covered with black plastic near MW 36 and the road cut piles. Chris was going to provide me with information as to where it came from and what it was contaminated with.***

Response: EWMA tried to investigate the origin and nature of these piles in accordance with the NJDEP comments, but no further information was available. This is detailed in the September 2000 RIR, Section 2.4.7.3.

- ***In general EWMA shall resubmit a much more detailed Phase II Remedial Investigation***

Mr. Robert Hayton
NJDEP-Bureau of Federal Case Management
Response to January 12, 2000 NJDEP letter
April 27, 2001

Page 16 of 16


Work Plan which is prepared in accordance with the Technical Requirements for Site Remediation (N.J.A.C. 7:27E-4.2) for both the soil and ground water investigation and addresses all the above comments to the Department's satisfaction. This shall include maps showing sample locations, analytical parameters and methods and sampling methods. The figures included with this recent submittal were difficult to work with. EWMA shall submit figures that are easier to read and more clearly discern between what is proposed and what is existing. A revised work plan shall be submitted to the Department within 45 days of receipt of this letter.

Response: EWMA completed and submitted a revised workplan entitled *Phase II Remedial Investigation Workplan*, dated October 2000.

This response letter is being submitted concurrent with the response to the March 15, 2001 NJDEP letter.

If you require any further information, you can reach me at (973) 560-1400, extension 155.

Respectfully,
Environmental Waste Management Associates, LLC


Burton Turner, PE, PG
Senior Project Engineer

Attachments

CC: Richard LaBarbiera, Edgewater Enterprises
Scott Heller, Edgewater Enterprises
Dennis Toft, Wolff and Samson

200957



State of New Jersey

Department of Environmental Protection

DONALD T. DiFRANCESCO
Acting Governor



CERTIFIED MAIL
RETURN RECEIPT REQUESTED

MAR 15 2001

Mr. Scott Heller, Executive Vice President March 14, 2001
Edgewater Enterprises LLC
525 River Road
Edgewater, New Jersey 07020

Re: Celotex Industrial Park, Edgewater, Bergen County

Remedial Investigation Report, September 2000
Gypsum Landfill issues, October 2000
RCRA Closure Reports #1 and #2, October 2000, December 2000
Remedial Investigation Work Plan, October 2000

Dear Mr. Heller:

The New Jersey Department of Environmental Protection (Department) has reviewed the above referenced reports and have the following comments:

RI Report

Ground Water

1. The tidal study was not performed due to equipment problems. It will be performed during the next phase of the RI. This is acceptable.
2. A well search for the area, which was submitted for the Lustrelon property, also applies to Celotex. There are a number of monitoring wells in the area, but no domestic, industrial or public supply wells. The Department reviewed the well search as part of the ISRA program and it is acceptable.
3. A ground water contour map with 12/21/99 ground water sampling results is presented. The results show that further vertical and horizontal delineation of the contamination is necessary. Please see our comments
4. The ground water comments listed in the NJDEP's 1/12/00 letter need to be addressed.

Soils

1. Page 15 Section 2.4.5.1 - No further soil removal is necessary in the C-45, C-46, C-47, C-48 and C-50 areas, however as historically stated by the Department, clean zone samples shall be established to the west in order to properly record a deed notice.
2. Page 16 Section 2.4.5.2 - The C-98 area has been excavated and no other soil remediation is necessary at this location.
3. Page 16 Section 2.4.5.3 - The C-4 area is completed and no further analyses are necessary for arsenic. The C-79 area however still has very high arsenic and lead contamination that is associated with the adjacent Quanta Resources Superfund Site. Further delineation or removal of contamination shall also be coordinated with USEPA. Pursuant to paragraph 61 of the 1999 ACO between the Department and Edgewater Enterprises LLC, if your consultant EWMA acquired any additional delineation samples, please submit the data to the Department and USEPA.
4. Page 16 Section 2.4.5.4 - Additional details pertaining to the removal of the soil in this area are necessary. The original location C-77 exhibited PAH and metals contamination from depths ranging between surface and 16 ft below grade. It must be verified that the sample representing a vertical clean zone was collected below the 16.0-foot depth originally referenced as being contaminated. Additionally due to the levels of metals contamination detected within the post-ex samples, additional As and Pb delineation is necessary west of this location.
5. Vertical Delineation - Additional delineation sampling to complete vertical delineation was conducted in a few of the excavated areas. The Department agreed that a vertical clean zone would not be required to be established at every single sample location, however the clean zone depths that will eventually be utilized will need to be clearly outlined for the Department to review.
6. Page 17 Section 2.4.6, Hot-Spot (Delineation) Areas of Concern - C-74, C-75 and C-77 - It appears that lateral clean zones have been established to the west of these contaminated locations. However, metals contamination above criteria is now known to be present within the post-ex samples from area C-77. Sample CC2-24 to the west of C-77 was not analyzed for metals. As stated above additional lateral delineation to the west in the vicinity of CC2-24 is required for Arsenic and lead.
7. Page 18 Section 2.4.6.2 - Please see comment #3 above.
8. Page 19 Section 2.4.6.3 - Delineation to the south and west of these locations was considered appropriate, provided all of the contaminants were taken into consideration and investigated. Only PAH analysis was completed at these boring locations. The Department noted that VOCs and metals required investigation. The Department also previously stated that C-32 and 34 were considered hot spots due to the levels of PAHs detected. Vertical delineation was also required. It is agreed that this area is included in the newly listed Quanta Superfund site and will be investigated under the auspices of USEPA.
9. Page 19 Section 2.4.6.4 - As stated above in comment # 8 this area is included in the newly listed Quanta Superfund site and will be investigated under the auspices of USEPA.

10. Page 19 Section 2.4.6.5 - No additional investigation of this area is necessary. Location C-63 is addressed as part of AOC-13.
11. Page 20 Section 2.4.6.6 - No additional sampling specific to these locations is necessary. The levels of CaPAHs remaining are consistent with the concentrations observed on the remainder of the site.
12. Page 21 Section 2.4.7.1 - No additional actions are required to address Sales Area Stockpile soil, however the approximate location of where the soil was graded shall be depicted on a site map and the concentrations must be included in the deed notice.
13. Page 21 Section 2.4.7.2 - No additional actions are required to address the "Continuing Care Soil" stockpile. The contaminant concentrations remaining shall be included in the site wide remedial strategy.
14. Page 22 Section 2.4.7.3 - No additional actions are necessary at this time with regard to the four covered piles near MW 36.
15. Page 22 Section 2.4.7.3 - As stated in the past, the use of over burden soils from hot spot excavations does not appear to be a concern since PAH contamination is found throughout the site.
16. Page 23 Section 2.4.8 - The proposal to include this area in the site wide remedial strategy is still acceptable.
17. Page 23 Section 2.4.9 - The proposal for no additional action is acceptable.
18. Page 23 Section 2.4.10 - This is acceptable
19. Page 23 Section 2.4.11 - No additional offsite delineation is necessary at this time. The existing data is sufficient to allow the determination of an appropriate remedial strategy.

Gypsum Landfill

1. Additional samples were collected as required, however the sample locations and depths still fail to satisfy all the Department's concerns as outlined within the 8/18/99 letter. Specifically, comment #2 - PCB delineation was required in the vicinity of samples LFTP-4 and LFB-3. Both samples exhibited PCB concentrations at depths of 13-13.5 ft and 25-26 ft. None of the delineation samples address lateral delineation at these depths nor do they address vertical delineation below these depths at these two locations. This discrepancy shall be addressed immediately. Also the more recent surface samples reported elevated PCBs at location LFSS-4. It is not clear where a PCB clean zone has been established surficially to the west of LFSS-4. This shall also be addressed immediately.

The requirement to complete delineation of arsenic and lead has not been addressed. Samples LFSS-1 to 7 were collected 0-2 ft. These samples do not help define the limits of these two metals, which were detected at depths of 25-26 feet during the first round of characterization sampling. Arsenic and lead shall be delineated.

2. With regard to a proposed cap of 18 inches, it is likely that this cap would be sufficient for protecting human health provided it's thickness is maintained throughout the existence of this area. It should be noted that the majority of riverwalk was constructed without the proper cap beneath. Most of the paver blocks are resting on 6 inches or less of dense-graded aggregate and 2" of leveling sand. In fact during my site visits on 16 March and 4 April 2000 I observed the paver blocks directly on the gypsum waste. This is unacceptable. The walkway is part of the engineering control within the deed notice required for the site. Edgewater Enterprises LLC shall demonstrate to the Department the thickness of the current cover of the gypsum landfill by conducting soil corings to a depth of twenty-four (24) inches with a grid spacing of 25 feet. This information shall be submitted to the Department in the form of a report. The exact location of the river walk in relation to the landfill soil and clay cap and all contaminant concentrations and depths shall also be included in this report. All information shall be presented on a detailed/scaled site map. The Department will then determine whether the river walk cap and the soil cap complies with the above stated capping strategy. Additional information regarding the western boundary of the landfill and the impact the proposed development will have on it shall be also discussed in the report. If the western area of the landfill will need a different type of cap then this shall be proposed.

In addition to the above please note that, during my above referenced site visits and my 10 April 2000 follow-up letter to you, Edgewater Enterprises LLC was required to also place the appropriate cover along any slopes where there is exposed waste material. This included the slopes that come into contact with the Hudson River where there are currently boulders or rip rap. This area shall comply with the above stated capping remedy

3. Edgewater Enterprises LLC was required to establish the western boundary of the landfill area. A series of test pits (LFTP-13 to 18) were excavated August 2000 to determine the limits of the gypsum fill material. The depth of the material ranged between 6" and 8.0 feet. In areas where gypsum fill is less than 12" - it is proposed that the gypsum material be excavated and placed within the main landfill area. This will reduce that area designated as fill within the deed notice. The boundary will be surveyed and marked with permanent survey markers. This proposal is acceptable to the Department.
4. The Department required that the excess waste pile stored on top of the western section of the landfill be disposed offsite. Edgewater states that the waste pile has been removed from the site and that disposal documentation will be provided to NJDEP as soon as it is received. Edgewater Enterprises LLC shall submit the disposal documentation within 15 days of receiving this letter.
5. As a result of the reshaping of the landfill area, excess material extends into the proposed retail development area of the site. Gypsum fill is present up to 8.0 feet thick within this region. A concrete slab construction is proposed in this area. No building structures will be directly on grade. Retail structures are planned on the elevated deck above the fill area. This proposal shall be included in the report describe in comment 2 above.

RCRA Area

1. To date NJDEP has not received disposal documentation for the stockpiled soils removed from areas AC-10 and AC-27. It is noted that approximately 140 cubic yards of contaminated material was awaiting offsite transport and disposal. Edgewater Enterprises LLC shall submit the disposal documentation within 15 days of receiving this letter.

2. Documentation as to the origin of the backfill material must also be supplied for NJDEP review. This shall be submitted to the Department within 15 days of receipt of this letter.
3. It appears that only sidewall samples were collected at both areas of excavation. Vertical clean zones were not documented at either area. It was noted that minimal impact from a discharge was observed to soil beneath the water table at AC-10. This minimal impact must be confirmed with laboratory data, as is the case with the area beneath the concrete slab at AC-27. This area shall be sampled.
4. As required for every other AOC on the former Celotex property lateral clean zone boundaries for all contaminants must be depicted on a scaled site map. The contaminants within this AOC must be shown in relation to the contamination site wide.
5. Before the cap in this area can be approved the contaminated sample depths and locations must be documented in reference to the area to be covered with paver blocks. As stated for other areas across the site a minimum of 18 inches of clean material shall be present beneath the paver blocks.
6. It is agreed that the levels of CaPAHs and metals present within this area are consistent with the remainder of the site. High arsenic and lead levels associated with a reddish/purple discoloration are evident across the southern portion of the Celotex property and have been noted in this area as well.
7. This area must be included within the site-wide deed notice. A long-term engineering control monitoring and maintenance program must be detailed and provided for NJDEP review.

RI Work Plan

1. All County Environmental Services - The Department had previously required that ground water monitoring wells be installed. This report states that one well exists in the area and that four wells will be installed so that there is a total of five wells (one upgradient and four downgradient) monitoring the unit. The five water table wells will be sampled for PP+40.

This proposal is conditionally acceptable as long as a map is submitted which shows the location of the former tank farm, the existing well and the four proposed wells. The figure in this report only shows the well locations and does not show the location of former tank farm.

2. Southern Portion of the Site Ground Water Contamination - This area of the site has coal tar type contaminants from the Quanta Resources site to the south. Celotex proposes to sample 8 wells in the southern portion of the site for total and dissolved arsenic and VO+10 including naphthalene.

Prior to approval of this proposal Edgewater Enterprises LLC shall address the Department's 12 January 2000 letter the NJDEP discusses the issue of vertical delineation to the Ground Water Quality Standards in the vicinity of MW-2 and MW-7. This delineation needs to take place by installing a deeper monitoring well and sampling it for total and dissolved arsenic, VOC+10 including naphthalene.

3. Ground Water Contamination at C-79 -- C-79 was a soil boring with high arsenic and lead. A well (MW-6A) was completed at this location. The contamination was found to be more wide spread. Celotex proposes to sample six wells in the area for total and dissolved arsenic, VOC+10 including naphthalene.

This strategy is acceptable. The high arsenic levels in MW-4A, MW-6A and MW-22 need to be vertically delineated to the Ground Water Quality Standards using deep monitoring wells.

4. Celotex proposes to install new wells called MW-37 and MW-38 near the Quanta Resources site to determine the ground water flow direction in that area to see if the high arsenic is migrating on-site from the Quanta Resource property. This is acceptable.
5. A 28-day tidal study will be conducted in wells MW-6A, MW-4, MW-3 and MW-19. Water levels will be collected at the beginning and end of the study from all site wells. The tidal study shall also include the deep wells. Ground water contour maps should be prepared for each site wide ground water elevation sampling event.
6. Celotex states that wells MW-5, MW-13A and MW-14A will not be sampled because contamination migrating north to south has not been a problem. MW -11 and MW-12 will be sampled for total and dissolved arsenic as part of the site wide investigation.

This strategy is acceptable but shall be augmented. MW-12 and MW-13A had levels of 1,2 dichloroethane over 500 ppb. These two wells need to be sampled for VOC +10 and metals. Also, MW-11 was not sampled during the most recent sampling round because it could not be found. MW-11 shall be sampled for VOC +10 and metals. The contamination shall be horizontally and vertically delineated to the Ground Water Quality Standards

7. Celotex proposes to use low flow sampling procedures for arsenic. A flow through cell needs to be used to collect indicator parameters. The proposal states that the wells will be purged at a rate of 1 liter per minute. The recommended purging rate for low flow sampling is 200-500 ml/minute. Also, the flow rate for sampling is not specified. The recommended flow rate for sampling is between 100 and 250 ml/minute. The low flow sampling procedure shall be revised to reflect these items.
8. It is assumed that normal sampling and purging procedures will be used for the VOC sampling. Therefore, the use of a peristaltic pump is acceptable for the low flow sampling for arsenic.

Additional Comments

Also please be advised that, as discussed in our 2/22/01 meeting, Edgewater Enterprises will submit to the Department the following items:

1. A piling plan schematic for the entire site that includes all piling locations, the phases and schedules in which they are planned to be put in place.
2. The above plan shall include the surveyed extent of the gypsum landfill.
3. Three additional deep (immediately above bedrock) wells shall be incorporated into the ground water RI. One deep well shall be located just east of the RCRA containment area;

Mr. Scott Heller
March 14, 2001
Page 7 of 7

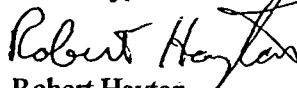
another shall be located between monitoring well 4 and 6 and the last well will be located near MW 20.

4. Ground water elevations taken on 2 February 2001 for all wells shall be provided to the Department.
5. Edgewater Enterprises LLC shall respond to the Departments 12 January 2000 letter within 15 calendar days of receipt of this letter. This outstanding response has placed Edgewater Enterprises LLC in non-compliance with the April 1999 ACO between the Department and Edgewater Enterprises LLC and subject to penalties pursuant to paragraph 46 of the ACO.
6. In addition to the above items, I am enclosing a letter that was received by the Department from USEPA concerning the construction at the Celotex Site. Please note that this letter requests information concerning the development of the Celotex Site. Pursuant to paragraph 11 of the above referenced ACO, Edgewater Enterprises shall provide the requested information to the USEPA with a copy sent to the Department. This shall include any utilities and/or conveyances that will need to be placed below grade.
7. Please be advised that the Department still has not received the Quarterly report requested in December or the yearly financial report. Edgewater Enterprises LLC shall submit said reports within 15 calendar days of receipt of this letter. These outstanding submittals have placed Edgewater Enterprises LLC in non-compliance with the above referenced ACO and subject to penalties pursuant to paragraph 46 of the ACO.

Edgewater Enterprises shall respond to this letter within 30 calendar days of its receipt unless otherwise specified. Failure to do so will be a violation of paragraph 28 of the April 1999 ACO between the Department and Edgewater Enterprises LLC.

If you have any questions please call me at (609) 633-0744.

Sincerely,



Robert Hayton
Case Manager
Bureau of Case Management

- c. Dennis Toft, Wolfe and Sampson
Burt Turner, EWMA
Anne Pavelka, NJDEP
Chris Lacy, NJDEP
Richard Ho, USEPA

Attachment A

Tidal Study Report



Environmental
Waste
Management
Associates

TIDAL STUDY REPORT

Property Known As:

Former Celotex Industrial Park
River Road
Edgewater, Bergen County, New Jersey
Site No. NJD981876642

Prepared for:

Edgewater Enterprises, LLC

March 19, 2001

Submitted by:

Environmental Waste Management Associates, LLC
100 Misty Lane, P.O. Box 5430
Parsippany, New Jersey 07054
EWMA Case No. 200957

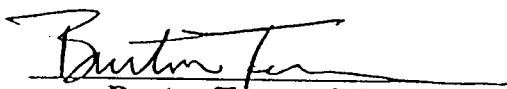

Burton Turner, PE, PG
Senior Project Engineer

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2.0	Scope of Study	1
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4.0	Findings	3

ATTACHMENTS

Site Plan

Figure 1: Inclusive Water Level Data Plot, 12/1/00 – 1/4/01

Figure 1A: Inclusive Water Level Data Plot, 12/1/00 – 1/4/01, with trendlines

Figure 2: Week 1 Water Level Data

Figure 3: Week 2 Water Level Data

Figure 4: Week 3 Water Level Data

Figure 5: Week 4 Water Level Data

Figure 6: Week 5 Water Level Data

Figure 7: Low Amplitude Daily Cycle, First Half of Study

Figure 8: High Amplitude Daily Cycle, First Half of Study

Figure 9: Low Amplitude Daily Cycle, Second Half of Study

Figure 10: High Amplitude Daily Cycle, Second Half of Study

Figure 11: Hudson River Tides at The Battery, New York Harbor

Figure 11A: Hudson River Tides at The Battery, New York Harbor, with trendline

Figure 11B: Hudson River Tides at The Battery, with moving average trendline

Figure 12: Precipitation at Teterboro, NJ

Figure 12A: Precipitation at Teterboro, NJ, with trendline

Table 1: Raw data and calculated groundwater elevations

Table 2A, 2B: Local Climatological Data, 12/2000 and 1/2001

1.0 INTRODUCTION AND BACKGROUND

This report presents the results of a tidal study performed to evaluate tidal influence on groundwater levels at the subject site, located on River Road in Edgewater, New Jersey. The property is owned by Edgewater Enterprises, LLC and is referred to herein as the former Celotex Park Property. The eastern property boundary is formed by the Hudson River, and is along the river's tidal stretch. The property is currently undergoing remediation of historic contamination related to the industrial history of the area, for development as a multi-use commercial and residential complex.

The tidal study is a component of remedial investigation (RI) activities at the site originally proposed in an August 1999 RI Workplan, and commented on in NJDEP correspondence dated January 12, 2000.

2.0 SCOPE OF STUDY

The study involved placement of automatic water level data-loggers installed in four wells at the site, specifically MW-3, MW-10, MW-19, and MW-22. These wells were selected based on their relative landward distances from the riverfront, to evaluate lag time of the tidal influence across the site. All four of the wells are shallow wells of less than 20-feet depth. The data-loggers were installed on November 30, 2000, and removed on January 5, 2001. Readings were recorded every 10 minutes during the period. For the purposes of the report, the partial first and last days of data were eliminated, and the remaining 35 inclusive days of data, or a full 5-week period, were used for preparing the report graphs. Tidal data was not collected at the site, but was obtained for the location of Battery Park in Lower Manhattan. The peak tides at Edgewater lag the Battery Park location by approximately 30 minutes, and the tide amplitude would be lesser at the Edgewater location. Daily precipitation records were obtained for Teterboro, NJ for the period, from the National Oceanic and Atmospheric Administration (NOAA).

The collected data was reviewed and plotted in various graphs which are provided as attachments to this report, in order to determine lag time of tidal influence across the site, relative levels of tidal influence on groundwater levels, and relationship to local precipitation.

The following figures and tables are provided as attachments:

- Figure 1: Inclusive Water Level Data Plot, 12/1/00 – 1/2/01
- Figure 1A: Inclusive Water Level Data Plot, 12/1/00 – 1/4/01, with trendlines
- Figure 2: Week 1 Water Level Data
- Figure 3: Week 2 Water Level Data
- Figure 4: Week 3 Water Level Data
- Figure 5: Week 4 Water Level Data
- Figure 6: Week 5 Water Level Data
- Figure 7: Low Amplitude Daily Cycle, First Half of Study
- Figure 8: High Amplitude Daily Cycle, First Half of Study
- Figure 9: Low Amplitude Daily Cycle, Second Half of Study
- Figure 10: High Amplitude Daily Cycle, Second Half of Study
- Figure 11: Hudson River Tides at The Battery, New York Harbor
- Figure 11A: Hudson River Tides at The Battery, New York Harbor, with trendline
- Figure 11B: Hudson River Tides at The Battery, New York Harbor, with moving average trendline
- Figure 12: Precipitation at Teterboro, NJ
- Figure 12A: Precipitation at Teterboro, NJ, with trendline
- Table 1: Raw data and calculated groundwater elevations
- Table 2A, 2B: Local Climatological Data, 12/2000 and 1/2001

3.0 DISCUSSION OF DATA

The raw data-logger data and calculated groundwater elevations are provided in Table 1, and Teterboro, NJ precipitation data for December 2000 and January 2001 are provided in Tables 2A and 2B, respectively.

Figures 1 through 10 are plots of groundwater data from each of the four wells used in the study, for varying periods. Figure 1/1A include all 35 days of data, while Figures 2 through 6 display one-week periods each. Figures 7 through 10 provide periods of relatively high and low amplitude daily periods, in the earlier and later stage of the study. Figures 11/11A/11B depict the tidal data from Battery Park in Lower Manhattan, and Figures 12/12A depict the Teterboro, NJ precipitation data for the study period. Note that the tidal data only includes the period from December 1 through December 31. The precipitation data does not include any days prior to December 1, which may have had some impact on the earliest portion of the groundwater level data.

Maximum range of water level in the four wells generally decreased with greater distance from the river, with the exception of MW-3 showing greater range in levels than MW-19, which is closer to the river. Water levels ranged from 1.8 to 4.2 feet msl at MW-3, 1.9 to 3.8 feet msl at MW-19, 4.9 to 6.5 feet msl at MW-10, and 4.3 to 5.7 feet msl at MW-22. Approximately 0.2 feet of MW-10 range appears due to damage which occurred to the well on December 17 when it was hit by a piece of equipment. The highest overall groundwater elevations were observed generally in MW-10.

The graphs indicate typically minimal lag time across the site of the tidal influenced fluctuations in groundwater levels. A review of the data table also indicates that the peak levels across the site occur generally within an approximately 10-minute period.

The lowest levels of the period were generally observed in the second week, and the highest levels occurred during the third week, after the precipitation of December 15th to 17th.

The daily low/high amplitude plots indicate minimal daily fluctuation in the wells to be approximately 0.1 feet (January 2, 2001), and maximum daily fluctuation of approximately 1.0 feet (December 12, 2000).

Trendlines shown in Figures 1A, 11A, and 12A indicate a similar trend in the water levels and tides during the first two to three weeks of the study, followed by a period of steady high water levels in the fourth week while the monthly tide cycle trended lower. The relatively steady higher water levels were apparently influenced by the precipitation of the earlier week. The last week's water level data also indicates some influence from the precipitation of December 30.

4.0 FINDINGS

The results of the tidal study indicate that the groundwater levels at the site are tidally influenced, resulting in daily water level fluctuations ranging from as little as one-inch to approximately one-foot, based on the collected data during the study period. The overall trend in groundwater levels during the period appears to be similar to the monthly tidal cycle, with the influence of precipitation apparent as a separate component to the changes in groundwater levels. The lag time across the site appears to be minimal, with peaks at all of the monitored wells occurring within one to two reading intervals (10 to 20 minutes).

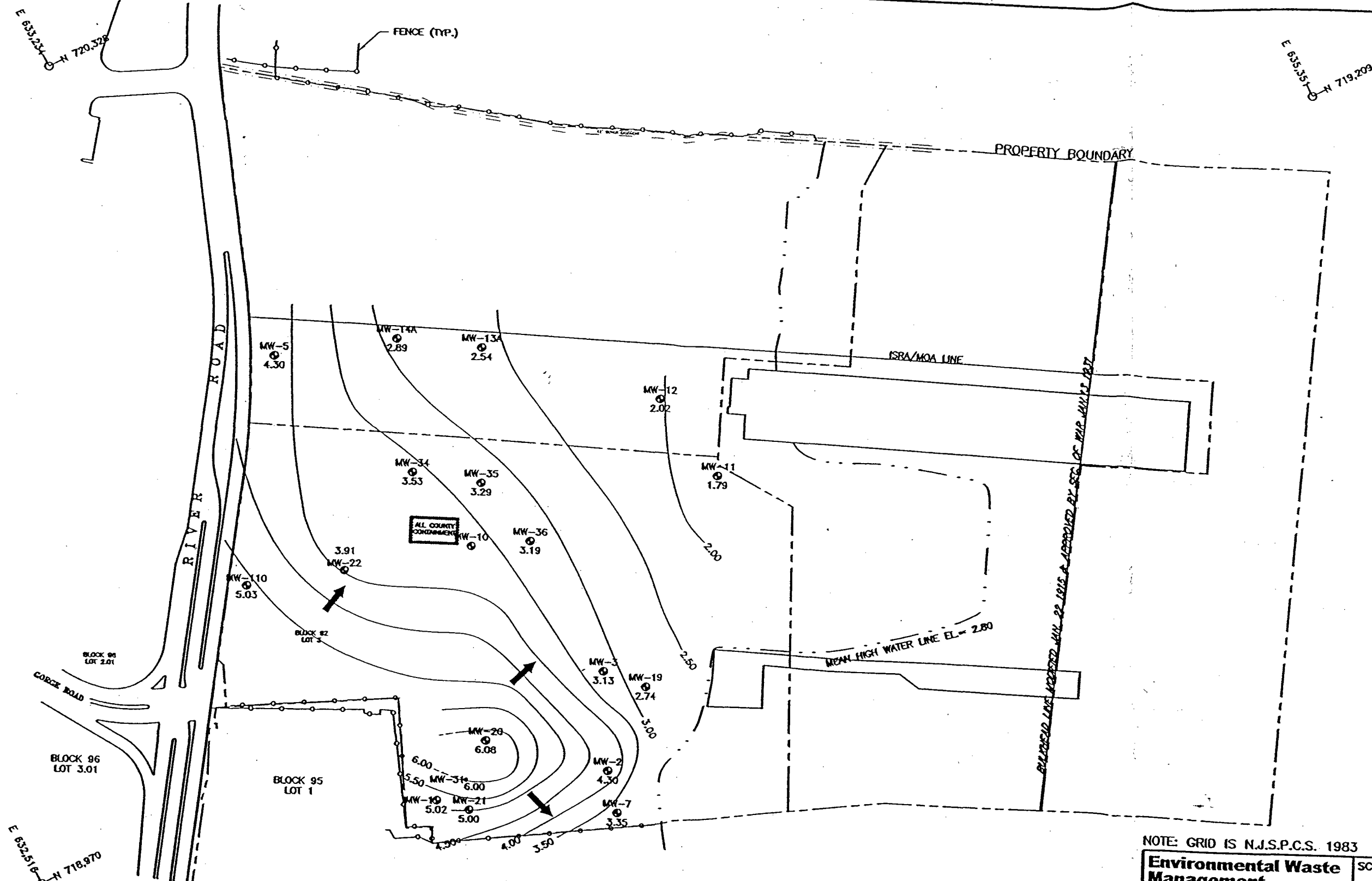
Tidal Study Report
Former Celotex Park Property
River Road, Edgewater, NJ
NJDEP Site No. NJD981876642
EWMA Project No. 200957
March 19, 2001

Page 4

As the four wells employed for the tidal study are all shallow overburden wells, the results of the tidal study are only representative of groundwater fluctuations in the shallow groundwater, and not the bedrock groundwater conditions.

Attachment D

Groundwater Contour Map (February 22, 2001)



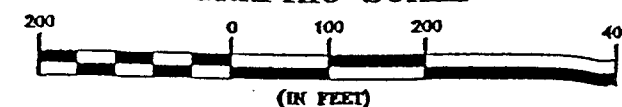
LEGEND

5.02
● MW-1

MONITORING WELL LOCATION WITH GROUND WATER
ELEVATION IN FEET ABOVE MEAN SEA LEVEL (DATUM = NGVD 1929)

GROUND WATER CONTOUR WITH ELEVATION IN FEET
DASHED WHERE INFERRED, WITH FLOW DIRECTION

GRAPHIC SCALE



NOTE: GRID IS N.J.S.P.C.S. 1983

Environmental Waste Management Associates, LLC P.O. Box 5430 Parsippany, NJ 07054 Tel: (973) 560-1400	SCALE: AS SHOWN	PROJECT# 200957
	DATE: 4/24/01	
	DRAWN BY: DLW/RR	
	CHECKED BY: BT	
GROUND WATER CONTOUR PLAN - 2/22/01		FIGURE# 2
FORMER CELOTEX PARK PROPERTY 1 RIVER ROAD EDGEWATER, NEW JERSEY		



Environmental Waste Management Associates, LLC

P.O. Box 5430, Parsippany, NJ 07054
Tel: (973) 560-1400 Fax: (973) 560-0400

EWMA Job #:

200957

Well #:

ACMW-1

Start Date:

8/1/02

Well Location: -----

Site: Former Celotex Industrial Park
1 River Road
Edgewater, New Jersey

Well Permit #: 26-62068

Completion Date: 8/21/01

Geologist: M. Speck

Drilling Co.: Summit

Driller/Helper: Steve Yotcoski

Drill Rig: Gus Pech

Drilling Method: Air Rotary

Type of Bit: Standard

Sampler Type: Split Spoon

WELL LOCATION SKETCH (N.T.S.)

Solid Riser: 4.0' (2.0' ABOVE GRADE)

G.W. Encountered: 8'

G.W. Stabilized: 5'

Well Depth: 17'

Screen Interval/Screen Type: 4"Ø 0.20" SLOT PVC, 2'-17'

Depth to Rim: N/A

Borehole Diameter: 8"

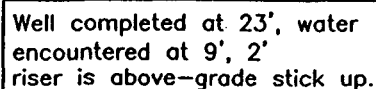
Well Diameter: 4"

Grout: 0'-2'

Sand Pack/Open Borehole: 2'-17'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OJA (FEET UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGIC DESCRIPTION	DEPTH (FT.)	WELL CONSTRUCTION DIAGRAM (N.T.S.)
		0.0				0.0'-0.5' FILL (DRY)		2' Above grade Stick-up
1		0.0					1	
2		0.0					2	Grout
3		0.0	8				3	
4		0.0	7	10"	SM	0.5'-8.0' Brown medium SAND, some medium-dense silt (moist)	4	4' Solid 4"Ø PVC Riser
5		0.0	11				5	
6		0.0	10				6	
7		0.0					7	
8		0.0					8	
9		0.0	9				9	
10		0.0	12	24"			10	
11		0.0	10				11	8"Ø Open Borehole
12		0.0	13				12	20' .020 Slot 4"Ø PVC Screen
13		0.0			SM	8.0'-17.0' Brown medium SAND, some medium-dense silt (wet @ 8.0')	13	
14		0.0	16				14	
15		0.0	17	20"			15	Sand pack
16		0.0	13				16	
17		0.0	18				17	Threaded end cap
18							18	
19							19	
20							20	
21							21	
22							22	
23							23	
24							24	

Well completed at 17', water encountered at 8', 2' riser is above-grade stick up.



**Environmental Waste
Management Associates, LLC**P.O. Box 5430, Parsippany, NJ 07054
Tel: (973) 560-1400 Fax: (973) 560-0400

EWMA Job #:

200957

Well #:

DMW-2

Start Date:

3/14/01

Well Location: 10' West of MW-36

MW-35

ALL COUNTY
CONTAINMENT

MW-10

MW-36
DMW-2**WELL LOCATION SKETCH (N.T.S.)**

Site Name: Edgewater Enterprises	Well Permit #: 26-60614
Site Location: Edgewater, NJ	Completion Date: 3/14/01
Geologist: Richard Hodgson	Drilling Co.: Summit Drilling Co.
Driller/Helper: Todd N./Dave R.	Drill Rig: GP1100 AR
Drilling Method: Air Rotary	Type of Bit: DH Air Hammer

Sampler Type: 2" Split spoon

Solid Riser: 0'-21'

G.W. Encountered: 10.5'

G.W. Stabilized: N/A

Well Depth: 31'

Screen Interval/Screen Type: 21'-31' (0.020" Slot)

Depth to Rim: N/A

Borehole Diameter: 6"

Well Diameter: 2"

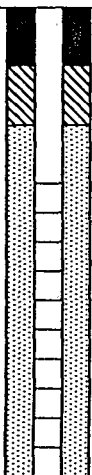
Grout: 0'-19'

Sand Pack/Open Borehole: 19'-31'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OJA (FEET/INCHES)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGIC DESCRIPTION	DEPTH (FT.)
2							
4							
6							
8							
10							
12							
14							
16			100/1	0			
18			100/1	0			
20			100/1	0			
22	0.0	17	21	8			
24	0.0	26	29				
26		100/1		0			
28	0.0	18	26	14			
30	0.0	21	26	9			
32	0.0	100/1					
34							
36							
38							
40							
42							
44							
46							
48							

WELL CONSTRUCTION DIAGRAM (N.T.S.)
(Above grade) Stick-up
Ground Surface
Cement collar
Grout 0'-19'
Solid 2" riser
6"Ø Borehole
Gravel pack
2" Screen
Threaded end cap

TRC RAVIV ASSOCIATES, INC. 57 E. Willow Street, Millburn, NJ 07041 (973) 564-6006				WELL LOG		WELL NUMBER MW-K	
PROJECT NAME: Former Celotex PROJECT NO.: 01C2084				LOCATION: Edgewater, New Jersey CONTRACTOR: Summit Drilling Co., Inc.		WELL PERMIT NUMBER 26-66215 Page 1 of 1	
SAMPLER TYPE/DIA.: Split spoon/2" DEPTH TO BEDROCK: NA TOTAL DEPTH DRILLED: 20'				TYPE OF WELL: Monitoring DRILLING METHOD: Air Rotary BIT TYPE: 4"/8" roller bit		START DATE: 5/23/2003 FINISH DATE: 5/23/2003 DRILLER: Steve Yotcoski LOGGED BY: Mary Gwynn	

DEPTH FROM SURFACE (FEET)	BLOW COUNT PER 6 IN.	RECOVERY (INCHES)	PID (ppm)	SAMPLE DESIGNATION	WELL DIAGRAM	UNIFIED	LITHOLOGIC CLASSIFICATION AND COMMENTS
0							
2	4-3	15	ND				0-15" Fill: Brown fine to coarse sand with a little silt, trace fine to coarse gravel. Loose, dry.
	3-3		ND				0-7" Fill (SAA); 7-10" Fill: Reddish brown fine sand with trace silt. Loose, very slightly moist.
4	6-4	10	ND				0-5" Fill: Reddish brown fine to medium sand with a little fine to coarse gravel, trace silt. Loose, dry.
	4-3		ND				No recovery.
6	11-7	5	ND				0-2" Fill: Brown f-c sand w/trace silt & fine gravel. Loose, dry.
	12-6						2-13" Fill: Red-brown vf-f sand, trace f-c gravel. Loose, dry.
8	16-22	0					0-7" Fill (SAA); 7-21" Fill: Dark gray to black cinders, slag and sand. Loose, wet at 15".
	50/0						0-5" Fill (SAA)
10	11-15	13	ND				No recovery. Clay coating tip of spoon. Spoon very wet.
	12-16		ND				SP 0-2" Sand: Black f sand w/little organics, trace silt. Loose, moist.
12	12-13	21	ND				OL 2-10" Silt: Gray clayey silt with trace vf sand, trace organics.
	10-10		1.7				Strong organic odor. Slightly stiff.
14	3-6	5	ND				OL 0-3" Silt (SAA)
	4-4						Construction Details: Neat cement 0 to 2 ft-bgs Grout from 2 to 4 ft-bgs #1 Sand pack from 4 to 16 ft-bgs 4" PVC casing from 0 to 6 ft-bgs 4" 8-slot PVC screen from 6 to 16 ft-bgs Flush mount with steel collar, locking cap SAA = Same As the Above interval
16	4-4	0					
	3-3						
18	6-4	10	57.1				
	3-2		15.8				
20	NA	3	1.7				
	NA						
22							
24							
26							
28							
30							

CASING TYPE/DIAMETER (IN.) INNER: 4" PVC OUTER: NA		STATIC WATER LEVEL: 11.01 feet below TOC DEPTH WATER ENCOUNTERED: 11.25 feet below surface	
SCREENED OR OPEN INTERVAL: 6-16 (FEET BELOW SURFACE)		MEASURING POINT ELEVATION (TOC): 15.19 feet above MSL GROUND SURFACE ELEVATION: 15.6 feet above MSL	